



**Actual Wellpath Report**  
 Shimano Unit 2H AWP Proj: 15440'  
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**REFERENCE WELLPATH IDENTIFICATION**

Operator	ANTERO RESOURCES CORPORATION	Well	Shimano Unit 2H
Field	Tyler	API	47-095-02617-0000
Facility	State Ridge Pad	Wellbore	Shimano Unit 2H AWB
Slot	Slot #08		

**REPORT SETUP INFORMATION**

Projection System	NAD27 / UTM Zone 17 North, US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Delaset
Scale	0.999601	Report Generated	1/29/2020 at 11:16:05 AM
Convergence at slot	0.08° 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	12.66	58.62	1675877.55	14347075.75	39°30'30.3110"N	80°52'27.3980"W
Facility Reference Pt			1675818.95	14347063.09	39°30'30.1867"N	80°52'28.1461"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	25.50ft
Horizontal Reference Pt	Slot	H&P 317 (RKB) to Mean Sea Level	1089.50ft
Vertical Reference Pt	H&P 317 (RKB)	H&P 317 (RKB) to Ground Level at Slot (Slot #08)	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	161.11°

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WELLPATH DATA (183 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	0.00	25.510	0.00	0.00	0.00	0.00	1675877.55	14347075.75	39°30'30.3110"N	80°52'27.3980"W	0.00	0.000	0.00	0.00	0.00	
25.50	0.000	25.510	25.50	0.00	0.00	0.00	1675877.55	14347075.75	39°30'30.3110"N	80°52'27.3980"W	0.00	0.000	0.00	0.00	0.00	
110.50	0.700	25.510	110.50	-0.37	0.47	0.22	1675877.77	14347076.22	39°30'30.3156"N	80°52'27.3951"W	0.52	25.510	0.82	0.82	0.00	Gyrodata MS Gyro <17-1/2">(100'-355')
135.50	0.560	33.950	135.50	-0.55	0.71	0.36	1675877.91	14347076.46	39°30'30.3180"N	80°52'27.3934"W	0.79	26.806	0.67	-0.56	33.76	
160.50	0.460	37.640	160.50	-0.68	0.89	0.49	1675878.04	14347076.64	39°30'30.3198"N	80°52'27.3918"W	1.01	28.732	0.42	-0.40	14.76	
185.50	0.370	37.810	185.49	-0.78	1.03	0.60	1675878.15	14347076.78	39°30'30.3212"N	80°52'27.3904"W	1.19	30.090	0.36	-0.36	0.68	
210.50	0.430	33.140	210.49	-0.88	1.17	0.70	1675878.25	14347076.92	39°30'30.3226"N	80°52'27.3891"W	1.37	30.754	0.27	0.24	-18.68	
235.50	0.380	38.880	235.49	-0.99	1.32	0.80	1675878.35	14347077.06	39°30'30.3240"N	80°52'27.3877"W	1.54	31.335	0.26	-0.20	22.96	
260.50	0.400	36.340	260.49	-1.08	1.45	0.91	1675878.45	14347077.20	39°30'30.3253"N	80°52'27.3864"W	1.71	31.954	0.11	0.08	-10.16	
285.50	0.450	21.960	285.49	-1.20	1.61	0.99	1675878.54	14347077.36	39°30'30.3269"N	80°52'27.3853"W	1.90	31.641	0.47	0.20	-57.52	
310.50	0.290	21.480	310.49	-1.33	1.76	1.05	1675878.60	14347077.51	39°30'30.3284"N	80°52'27.3845"W	2.05	30.869	0.64	-0.64	-1.92	
335.50	0.320	34.490	335.49	-1.42	1.88	1.12	1675878.66	14347077.63	39°30'30.3296"N	80°52'27.3837"W	2.19	30.714	0.30	0.12	52.04	
365.50	0.290	0.870	365.49	-1.54	2.02	1.17	1675878.71	14347077.77	39°30'30.3310"N	80°52'27.3831"W	2.34	29.923	0.60	-0.10	-112.07	
480.50	1.700	55.760	480.47	-2.26	3.28	2.58	1675880.13	14347079.02	39°30'30.3433"N	80°52'27.3650"W	4.17	38.226	1.35	1.23	47.73	WFT EM <12-1/4">(355')(470'-2709')
510.50	2.460	55.940	510.45	-2.55	3.89	3.48	1675881.03	14347079.63	39°30'30.3494"N	80°52'27.3535"W	5.22	41.852	2.53	2.53	0.60	
541.50	3.450	53.920	541.41	-3.00	4.81	4.79	1675882.33	14347080.55	39°30'30.3585"N	80°52'27.3368"W	6.78	44.868	3.21	3.19	-6.52	
570.50	4.480	51.390	570.34	-3.64	6.03	6.38	1675883.92	14347081.78	39°30'30.3705"N	80°52'27.3165"W	8.78	46.604	3.60	3.55	-8.72	
662.50	7.810	42.520	661.80	-7.84	12.88	13.41	1675890.95	14347088.62	39°30'30.4381"N	80°52'27.2267"W	18.59	46.156	3.75	3.62	-9.64	
756.50	10.120	38.860	754.65	-15.31	24.02	22.91	1675900.45	14347099.76	39°30'30.5481"N	80°52'27.1053"W	33.19	43.645	2.53	2.46	-3.89	
850.50	11.940	36.200	846.91	-25.28	38.30	33.84	1675911.37	14347114.03	39°30'30.6891"N	80°52'26.9656"W	51.10	41.460	2.01	1.94	-2.83	
945.50	14.630	33.410	939.36	-38.24	56.25	46.25	1675923.78	14347131.97	39°30'30.8663"N	80°52'26.8070"W	72.82	39.428	2.91	2.83	-2.94	
1040.50	17.250	31.720	1030.70	-54.52	78.25	60.26	1675937.79	14347153.96	39°30'31.0835"N	80°52'26.6278"W	98.76	37.602	2.80	2.76	-1.78	
1135.50	19.970	29.100	1120.72	-74.32	104.41	75.56	1675953.08	14347180.12	39°30'31.3419"N	80°52'26.4321"W	128.88	35.893	2.99	2.86	-2.76	
1229.50	21.820	29.860	1208.54	-96.59	133.59	92.07	1675969.58	14347209.28	39°30'31.6300"N	80°52'26.2210"W	162.24	34.574	1.99	1.97	0.81	
1324.50	23.810	33.850	1296.11	-119.84	164.83	111.54	1675989.05	14347240.51	39°30'31.9385"N	80°52'25.9720"W	199.02	34.086	2.65	2.09	4.20	
1419.50	25.950	36.760	1382.29	-143.18	197.41	134.67	1676012.16	14347273.08	39°30'32.2602"N	80°52'25.6764"W	238.97	34.300	2.59	2.25	3.06	
1513.50	26.820	37.930	1466.49	-166.39	230.62	160.01	1676037.49	14347306.27	39°30'32.5881"N	80°52'25.3524"W	280.69	34.754	1.08	0.93	1.24	
1608.50	27.520	38.110	1551.01	-190.08	264.79	186.73	1676064.20	14347340.43	39°30'32.9254"N	80°52'25.0109"W	324.01	35.191	0.74	0.74	0.19	
1703.50	29.060	37.960	1634.66	-214.65	300.25	214.47	1676091.93	14347375.88	39°30'33.2755"N	80°52'24.6564"W	368.98	35.538	1.62	1.62	-0.16	
1797.50	28.450	37.140	1717.07	-239.64	336.10	242.03	1676119.48	14347411.72	39°30'33.6295"N	80°52'24.3041"W	414.18	35.758	0.77	-0.65	-0.87	



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Field	Tyler	API	47-095-02617-0000
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Slot	Slot #08		

WELLPATH DATA (183 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 (1/100ft)	Build Rate (1/100ft)	Turn Rate (1/100ft)	Comments
1891.50	28.170	35.870	1799.83	-264.96	371.93	268.55	1676145.99	14347447.53	39°30'33.9832"N	80°52'23.9651"W	458.75	35.831	0.71	-0.30	-1.35	
1986.50	26.610	34.650	1884.18	-290.54	407.61	293.79	1676171.22	14347483.19	39°30'34.3355"N	80°52'23.6424"W	502.45	35.783	1.75	-1.64	-1.28	
2081.50	27.720	34.600	1968.70	-316.33	443.30	318.43	1676195.85	14347518.87	39°30'34.6879"N	80°52'23.3274"W	545.81	35.691	1.17	1.17	-0.05	
2175.50	28.700	36.310	2051.53	-342.22	479.48	344.21	1676221.62	14347555.04	39°30'35.0451"N	80°52'22.9978"W	590.24	35.674	1.35	1.04	1.82	
2270.50	29.190	35.820	2134.66	-368.62	516.65	371.28	1676248.68	14347592.19	39°30'35.4121"N	80°52'22.6518"W	636.22	35.702	0.57	0.52	-0.52	
2365.50	28.680	34.600	2217.81	-395.57	554.20	397.78	1676275.17	14347629.72	39°30'35.7828"N	80°52'22.3130"W	682.18	35.669	0.82	-0.54	-1.28	
2459.50	26.620	33.190	2301.07	-421.93	590.39	422.12	1676299.50	14347665.90	39°30'36.1402"N	80°52'22.0018"W	725.78	35.564	2.30	-2.19	-1.50	
2554.50	26.110	33.250	2386.19	-447.84	625.69	445.23	1676322.60	14347701.18	39°30'36.4887"N	80°52'21.7063"W	767.93	35.435	0.54	-0.54	0.06	
2648.50	26.380	35.950	2470.50	-472.56	659.89	468.84	1676346.20	14347735.38	39°30'36.8264"N	80°52'21.4046"W	809.48	35.393	1.30	0.29	2.87	
2719.50	25.340	36.100	2534.39	-490.37	684.94	487.05	1676364.40	14347760.41	39°30'37.0737"N	80°52'21.1717"W	840.45	35.416	1.47	-1.46	0.21	
2815.50	24.460	35.250	2621.46	-513.79	717.77	510.62	1676387.97	14347793.23	39°30'37.3978"N	80°52'20.8704"W	880.87	35.428	0.99	-0.92	-0.89	WFT EM <8-3/4">(2709'X2805'-6438')
2909.50	27.220	34.610	2706.06	-537.99	751.36	534.07	1676411.40	14347826.81	39°30'37.7295"N	80°52'20.5706"W	921.83	35.405	2.95	2.94	-0.68	
3008.50	30.810	35.420	2792.62	-566.26	790.67	561.63	1676438.96	14347866.10	39°30'38.1176"N	80°52'20.2182"W	969.84	35.387	3.65	3.63	0.82	
3103.50	30.450	33.830	2874.36	-595.03	830.49	589.14	1676466.45	14347905.91	39°30'38.5109"N	80°52'19.8666"W	1018.23	35.351	0.93	-0.38	-1.67	
3197.50	29.770	36.730	2955.68	-622.64	868.99	616.36	1676493.66	14347944.39	39°30'38.8909"N	80°52'19.5186"W	1065.38	35.347	1.71	-0.72	3.09	
3292.50	29.280	36.570	3038.35	-649.13	906.55	644.30	1676521.59	14347981.93	39°30'39.2617"N	80°52'19.1614"W	1112.18	35.402	0.52	-0.52	-0.17	
3387.50	29.080	34.030	3121.29	-676.22	944.34	671.06	1676548.34	14348019.71	39°30'39.6349"N	80°52'18.8193"W	1158.49	35.398	1.32	-0.21	-2.67	
3481.50	29.010	37.530	3203.48	-702.60	981.35	697.73	1676575.00	14348056.70	39°30'40.0003"N	80°52'18.4783"W	1204.11	35.413	1.81	-0.07	3.72	
3576.50	28.400	36.390	3286.80	-728.21	1017.80	725.17	1676602.43	14348093.14	39°30'40.3602"N	80°52'18.1276"W	1249.72	35.469	0.86	-0.64	-1.20	
3671.50	27.390	34.470	3370.77	-754.12	1054.01	750.94	1676628.19	14348129.33	39°30'40.7176"N	80°52'17.7981"W	1294.16	35.469	1.42	-1.06	-2.02	
3765.50	28.730	35.650	3453.72	-780.13	1090.19	776.35	1676653.59	14348165.50	39°30'41.0749"N	80°52'17.4733"W	1338.37	35.455	1.54	1.43	1.26	
3860.50	28.650	35.530	3537.05	-806.63	1127.28	802.89	1676680.12	14348202.58	39°30'41.4411"N	80°52'17.1340"W	1383.98	35.460	0.10	-0.08	-0.13	
3954.50	27.540	34.150	3619.98	-832.81	1163.61	828.19	1676705.40	14348238.89	39°30'41.7997"N	80°52'16.8105"W	1428.24	35.441	1.37	-1.18	-1.47	
4049.50	28.540	34.680	3703.82	-859.49	1200.44	853.43	1676730.64	14348275.71	39°30'42.1635"N	80°52'16.4878"W	1472.89	35.410	1.08	1.05	0.56	
4144.50	28.990	35.070	3787.10	-886.51	1237.95	879.57	1676756.77	14348313.20	39°30'42.5338"N	80°52'16.1536"W	1518.60	35.394	0.51	0.47	0.41	
4238.50	26.770	37.610	3870.19	-911.60	1273.37	905.58	1676782.77	14348348.61	39°30'42.8835"N	80°52'15.8211"W	1562.54	35.419	2.68	-2.36	2.70	
4333.50	28.110	35.670	3954.50	-936.39	1308.50	931.69	1676808.87	14348383.72	39°30'43.2303"N	80°52'15.4873"W	1606.31	35.452	1.70	1.41	-2.04	
4427.50	28.400	37.200	4037.30	-961.70	1344.30	958.12	1676835.28	14348419.51	39°30'43.5837"N	80°52'15.1495"W	1650.80	35.479	0.83	0.31	1.63	
4525.50	30.320	35.580	4122.71	-989.08	1382.98	986.61	1676863.76	14348458.18	39°30'43.9657"N	80°52'14.7853"W	1698.83	35.504	2.12	1.96	-1.65	
4619.50	29.190	33.480	4204.32	-1016.87	1421.40	1013.06	1676890.20	14348496.58	39°30'44.3450"N	80°52'14.4471"W	1745.47	35.478	1.64	-1.20	-2.23	

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4714.50	28.350	36.130	4287.59	-1043.94	1458.94	1039.14	1676916.27	14348534.11	39°30'44.7157"N	80°52'14.1136"W	1791.18	35.461	1.61	-0.88	2.79	
4808.50	28.650	39.130	4370.21	-1068.67	1494.45	1066.52	1676943.64	14348569.60	39°30'45.0662"N	80°52'13.7636"W	1835.99	35.514	1.56	0.32	3.19	
4903.50	27.370	36.600	4454.08	-1093.11	1529.65	1093.91	1676971.02	14348604.79	39°30'45.4137"N	80°52'13.4135"W	1880.55	35.570	1.84	-1.35	-2.66	
4997.50	26.010	34.840	4538.06	-1117.55	1563.92	1118.57	1676995.67	14348639.04	39°30'45.7520"N	80°52'13.0982"W	1922.77	35.574	1.67	-1.45	-1.87	
5092.50	27.140	33.290	4623.03	-1143.16	1599.13	1142.37	1677019.46	14348674.24	39°30'46.0997"N	80°52'12.7940"W	1965.25	35.541	1.40	1.19	-1.63	
5186.50	29.180	38.450	4705.91	-1168.68	1635.00	1168.39	1677045.47	14348710.10	39°30'46.4539"N	80°52'12.4613"W	2009.57	35.550	3.38	2.17	5.49	
5281.50	28.400	36.890	4789.17	-1193.88	1671.21	1196.35	1677073.42	14348746.29	39°30'46.8114"N	80°52'12.1038"W	2055.29	35.597	1.14	-0.82	-1.64	
5376.50	26.890	33.720	4873.32	-1219.63	1707.15	1221.85	1677098.90	14348782.22	39°30'47.1662"N	80°52'11.7779"W	2099.35	35.592	2.22	-1.59	-3.34	
5470.50	27.850	32.980	4956.80	-1246.10	1743.25	1245.60	1677122.65	14348818.30	39°30'47.5227"N	80°52'11.4742"W	2142.53	35.547	1.08	1.02	-0.79	
5565.50	27.120	31.050	5041.08	-1273.74	1780.42	1268.85	1677145.89	14348855.45	39°30'47.8897"N	80°52'11.1769"W	2186.29	35.476	1.21	-0.77	-2.03	
5660.50	27.640	33.170	5125.44	-1301.22	1817.42	1292.07	1677169.10	14348892.44	39°30'48.2550"N	80°52'10.8798"W	2229.90	35.411	1.16	0.55	2.23	
5754.50	27.990	31.940	5208.58	-1328.56	1854.39	1315.67	1677192.69	14348929.39	39°30'48.6200"N	80°52'10.5780"W	2273.71	35.355	0.72	0.37	-1.31	
5849.50	28.760	32.550	5292.16	-1356.89	1892.57	1339.76	1677216.77	14348967.56	39°30'48.9971"N	80°52'10.2700"W	2318.79	35.295	0.87	0.81	0.64	
5944.50	29.060	36.880	5375.33	-1384.12	1930.29	1365.91	1677242.91	14349005.27	39°30'49.3695"N	80°52'9.9357"W	2364.68	35.284	2.23	0.32	4.56	
6039.50	29.560	38.430	5458.17	-1409.75	1967.11	1394.32	1677271.31	14349042.07	39°30'49.7329"N	80°52'9.5725"W	2411.15	35.330	0.96	0.53	1.63	
6133.50	28.260	36.040	5540.46	-1435.05	2003.27	1421.83	1677298.81	14349078.21	39°30'50.0899"N	80°52'9.2208"W	2456.56	35.365	1.85	-1.38	-2.54	
6228.50	26.580	39.460	5624.79	-1459.13	2037.87	1448.57	1677325.54	14349112.80	39°30'50.4315"N	80°52'8.8790"W	2500.25	35.406	2.42	-1.77	3.60	
6259.50	26.030	44.730	5652.58	-1465.79	2048.05	1457.77	1677334.73	14349122.98	39°30'50.5321"N	80°52'8.7614"W	2513.88	35.443	7.74	-1.77	17.00	
6323.50	22.990	59.450	5710.86	-1474.57	2064.40	1478.44	1677355.39	14349139.32	39°30'50.6934"N	80°52'8.4974"W	2539.20	35.609	10.62	-4.75	23.00	
6386.50	21.140	76.080	5769.30	-1476.07	2073.40	1500.08	1677377.03	14349148.32	39°30'50.7820"N	80°52'8.2211"W	2559.15	35.885	10.31	-2.94	26.40	
6448.50	20.200	76.340	5827.31	-1474.13	2078.62	1521.34	1677398.27	14349153.53	39°30'50.8332"N	80°52'7.9498"W	2575.87	36.200	1.52	-1.52	0.42	
6497.00	21.200	76.780	5872.68	-1472.50	2082.60	1538.01	1677414.94	14349157.51	39°30'50.8723"N	80°52'7.7370"W	2588.96	36.446	2.09	2.06	0.91	BH AT Curve <8-1/2">(6448.5)(6497-15416)
6581.00	22.080	94.210	5950.84	-1464.80	2084.92	1568.57	1677445.49	14349159.83	39°30'50.8948"N	80°52'7.3469"W	2609.08	36.956	7.70	1.05	20.75	
6676.00	26.460	116.540	6037.61	-1442.66	2074.12	1605.41	1677482.31	14349149.04	39°30'50.7876"N	80°52'6.8771"W	2622.85	37.741	10.63	4.61	23.51	
6771.00	31.110	125.740	6120.89	-1407.53	2050.30	1644.30	1677521.19	14349125.23	39°30'50.5516"N	80°52'6.3813"W	2628.21	38.729	6.75	4.85	9.68	
6866.00	37.040	131.910	6199.56	-1362.49	2016.82	1685.57	1677562.44	14349091.76	39°30'50.2200"N	80°52'5.8554"W	2628.44	39.887	7.22	6.24	6.49	
6961.00	43.350	136.720	6272.11	-1307.75	1973.91	1729.27	1677606.13	14349048.87	39°30'49.7954"N	80°52'5.2986"W	2624.25	41.220	7.40	6.64	5.06	
7031.00†	49.552	140.158	6320.32	-1260.94	1935.93	1762.84	1677639.69	14349010.90	39°30'49.4195"N	80°52'4.8710"W	2618.29	42.321	9.55	8.86	4.91	Middlesex: 7031' MD
7055.00	51.700	141.190	6335.55	-1243.55	1921.58	1774.60	1677651.44	14348996.55	39°30'49.2775"N	80°52'4.7212"W	2615.66	42.723	9.55	8.95	4.30	
7150.00	58.380	146.880	6389.98	-1169.17	1858.55	1820.14	1677696.96	14348933.55	39°30'48.6539"N	80°52'4.1414"W	2601.36	44.402	8.57	7.03	5.95	

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## Actual Wellpath Report

Shimano Unit 2H AWP Proj: 15440'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Shimano Unit 2H
Field	Tyler	API	47-095-02617-0000
Facility	State Ridge Pad	Wellbore	Shimano Unit 2H AWB
Slot	Slot #08		

WELLPATH DATA (183 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 (ft/100ft)	Build Rate (ft/100ft)	Turn Rate (ft/100ft)	Comments
7182.00†	60.760	149.489	6406.19	-1142.28	1835.10	1834.68	1677711.49	14348910.11	39°30'48.4219"N	80°52'3.9563"W	2594.92	44.993	10.23	7.44	8.19	Burkett: 7182' MD
7228.00†	64.264	153.034	6427.42	-1102.09	1799.32	1854.27	1677731.08	14348874.35	39°30'48.0681"N	80°52'3.7070"W	2583.77	45.862	10.23	7.62	7.71	Tully: 7228' MD
7245.00	65.580	154.290	6434.63	-1086.82	1785.52	1861.10	1677737.90	14348860.56	39°30'47.9316"N	80°52'3.6201"W	2579.11	46.187	10.23	7.74	7.39	
7293.00	69.440	156.490	6452.99	-1042.71	1745.21	1879.55	1677756.35	14348820.26	39°30'47.5329"N	80°52'3.3854"W	2564.85	47.123	9.09	8.04	4.58	
7340.00	73.620	157.720	6467.88	-998.25	1704.15	1896.89	1677773.68	14348779.22	39°30'47.1268"N	80°52'3.1650"W	2549.96	48.064	9.23	8.89	2.62	
7373.00†	75.399	158.788	6476.69	-966.49	1674.61	1908.67	1677785.45	14348749.69	39°30'46.8347"N	80°52'3.0153"W	2539.16	48.737	6.23	5.39	3.24	Marcellus POE: 7373' MD
7434.00	78.700	160.720	6490.36	-907.07	1618.85	1929.23	1677806.00	14348693.95	39°30'46.2833"N	80°52'2.7540"W	2518.45	49.999	6.23	5.41	3.17	
7529.00	84.360	162.930	6504.35	-813.15	1529.61	1958.51	1677835.28	14348604.74	39°30'45.4009"N	80°52'2.3820"W	2485.05	52.010	6.39	5.96	2.33	
7624.00	89.720	165.080	6509.25	-718.44	1438.45	1984.64	1677861.39	14348513.62	39°30'44.4995"N	80°52'2.0504"W	2451.11	54.066	6.08	5.64	2.26	
7719.00	89.910	164.700	6509.56	-623.65	1346.73	2009.40	1677886.15	14348421.94	39°30'43.5927"N	80°52'1.7361"W	2418.96	56.169	0.45	0.20	-0.40	
7814.00	90.220	162.760	6509.45	-528.75	1255.54	2036.02	1677912.75	14348330.79	39°30'42.6910"N	80°52'1.3983"W	2392.02	58.339	2.07	0.33	-2.04	
7909.00	89.780	162.450	6509.45	-433.79	1164.88	2064.42	1677941.14	14348240.17	39°30'41.7946"N	80°52'1.0376"W	2370.40	60.565	0.57	-0.46	-0.33	
8003.00	89.510	162.960	6510.03	-339.82	1075.14	2092.36	1677969.07	14348150.45	39°30'40.9072"N	80°52'0.6828"W	2352.42	62.804	0.61	-0.29	0.54	
8098.00	90.000	162.120	6510.44	-244.86	984.52	2120.87	1677997.57	14348059.87	39°30'40.0112"N	80°52'0.3208"W	2338.24	65.099	1.02	0.52	-0.88	
8193.00	90.370	162.390	6510.13	-149.88	894.04	2149.82	1678026.51	14347969.43	39°30'39.1165"N	80°51'59.9531"W	2328.31	67.419	0.48	0.39	0.28	
8288.00	89.690	162.700	6510.08	-54.91	803.41	2178.32	1678054.99	14347878.84	39°30'38.2204"N	80°51'59.5913"W	2321.75	69.755	0.79	-0.72	0.33	
8383.00	89.910	162.400	6510.42	40.06	712.78	2206.80	1678083.47	14347788.25	39°30'37.3243"N	80°51'59.2295"W	2319.06	72.100	0.39	0.23	-0.32	
8478.00	89.750	159.470	6510.70	135.05	623.01	2237.83	1678114.48	14347698.50	39°30'36.4365"N	80°51'58.8353"W	2322.93	74.443	3.09	-0.17	-3.08	
8573.00	89.660	163.810	6511.19	230.02	532.86	2267.75	1678144.39	14347608.40	39°30'35.5452"N	80°51'58.4554"W	2329.51	76.777	4.57	-0.09	4.57	
8668.00	89.380	166.650	6511.98	324.76	441.02	2291.96	1678168.59	14347516.59	39°30'34.6371"N	80°51'58.1481"W	2334.01	79.108	3.00	-0.29	2.99	
8762.00	89.380	164.850	6513.00	418.45	349.92	2315.10	1678191.72	14347425.53	39°30'33.7364"N	80°51'57.8547"W	2341.39	81.405	1.91	0.00	-1.91	
8857.00	89.570	160.260	6513.87	513.39	259.31	2343.57	1678220.18	14347334.96	39°30'32.8405"N	80°51'57.4932"W	2357.87	83.686	4.84	0.20	-4.83	
8952.00	89.510	157.260	6514.63	608.29	170.78	2377.98	1678254.58	14347246.46	39°30'31.9650"N	80°51'57.0558"W	2384.11	85.892	3.16	-0.06	-3.16	
9047.00	89.600	155.210	6515.37	702.94	83.84	2416.26	1678292.84	14347159.56	39°30'31.1052"N	80°51'56.5691"W	2417.72	88.013	2.16	0.09	-2.16	
9142.00	89.140	154.000	6516.42	797.32	-1.97	2457.00	1678333.56	14347073.78	39°30'30.2565"N	80°51'56.0510"W	2457.00	90.046	1.36	-0.48	-1.27	
9236.00	89.320	153.110	6517.68	890.50	-86.13	2498.86	1678375.41	14346989.66	39°30'29.4241"N	80°51'55.5185"W	2500.34	91.974	0.97	0.19	-0.95	
9331.00	89.480	152.590	6518.67	984.51	-170.65	2542.21	1678418.74	14346905.16	39°30'28.5880"N	80°51'54.9671"W	2547.93	93.840	0.57	0.17	-0.55	
9426.00	89.290	156.170	6519.69	1078.83	-256.29	2583.27	1678459.79	14346819.56	39°30'27.7410"N	80°51'54.4448"W	2595.96	95.666	3.77	-0.20	3.77	
9521.00	89.540	161.930	6520.67	1173.72	-344.97	2617.23	1678493.73	14346730.91	39°30'26.8641"N	80°51'54.0133"W	2639.86	97.509	6.07	0.26	6.06	
9616.00	89.420	159.850	6521.53	1268.72	-434.73	2648.32	1678524.81	14346641.19	39°30'25.9765"N	80°51'53.6183"W	2683.77	99.322	2.19	-0.13	-2.19	

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Shimano Unit 2H AWP Proj: 15440'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Shimano Unit 2H
Field	Tyler	API	47-095-02617-0000
Facility	State Ridge Pad	Wellbore	Shimano Unit 2H AWB
Slot	Slot #08		

WELLPATH DATA (183 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
9710.00	89.110	160.380	6522.73	1362.69	-523.12	2680.29	1678556.77	14346552.84	39°30'25.1025"N	80°51'53.2121"W	2730.87	101.044	0.65	-0.33	0.56	
9805.00	89.660	162.910	6523.75	1457.68	-613.27	2710.21	1678586.67	14346462.72	39°30'24.2110"N	80°51'52.8322"W	2778.73	102.750	2.73	0.58	2.66	
9900.00	89.480	164.620	6524.47	1552.57	-704.47	2736.76	1678613.22	14346371.56	39°30'23.3092"N	80°51'52.4951"W	2825.98	104.435	1.81	-0.19	1.80	
9995.00	89.720	165.540	6525.13	1647.34	-796.27	2761.22	1678637.66	14346279.80	39°30'22.4016"N	80°51'52.1849"W	2873.74	106.086	1.00	0.25	0.97	
10090.00	89.230	163.690	6526.00	1742.15	-887.86	2786.42	1678662.86	14346188.25	39°30'21.4961"N	80°51'51.8651"W	2924.46	107.674	2.01	-0.52	-1.95	
10184.00	89.450	161.200	6527.08	1836.11	-977.47	2814.77	1678691.19	14346098.67	39°30'20.6100"N	80°51'51.5052"W	2979.66	109.150	2.66	0.23	-2.65	
10279.00	89.780	158.800	6527.72	1931.08	-1066.73	2847.26	1678723.67	14346009.45	39°30'19.7273"N	80°51'51.0924"W	3040.53	110.538	2.55	0.35	-2.53	
10374.00	89.660	156.080	6528.19	2025.88	-1154.45	2883.70	1678760.10	14345921.76	39°30'18.8598"N	80°51'50.6291"W	3106.20	111.818	2.87	-0.13	-2.86	
10469.00	89.420	155.560	6528.95	2120.47	-1241.11	2922.62	1678798.99	14345835.13	39°30'18.0027"N	80°51'50.1344"W	3175.22	113.009	0.60	-0.25	-0.55	
10564.00	89.820	155.700	6529.58	2215.03	-1327.64	2961.81	1678838.18	14345748.64	39°30'17.1469"N	80°51'49.6360"W	3245.76	114.144	0.45	0.42	0.15	
10659.00	89.350	154.480	6530.27	2309.51	-1413.80	3001.83	1678878.17	14345662.51	39°30'16.2948"N	80°51'49.1272"W	3318.10	115.220	1.38	-0.49	-1.28	
10753.00	89.600	157.350	6531.13	2403.11	-1499.61	3040.18	1678916.51	14345576.74	39°30'15.4461"N	80°51'48.6395"W	3389.91	116.255	3.06	0.27	3.05	
10848.00	87.750	161.030	6533.33	2498.01	-1588.37	3073.92	1678950.23	14345488.02	39°30'14.5684"N	80°51'48.2109"W	3460.04	117.326	4.33	-1.95	3.87	
10943.00	89.380	165.320	6535.71	2592.89	-1679.25	3101.40	1678977.70	14345397.17	39°30'13.6698"N	80°51'47.8621"W	3526.83	118.433	4.83	1.72	4.52	
11038.00	89.600	164.740	6536.55	2687.66	-1771.02	3125.94	1679002.23	14345305.44	39°30'12.7624"N	80°51'47.5508"W	3592.77	119.534	0.65	0.23	-0.61	
11133.00	90.000	163.510	6536.88	2782.53	-1862.39	3151.92	1679028.21	14345214.10	39°30'11.8589"N	80°51'47.2211"W	3661.03	120.578	1.36	0.42	-1.29	
11228.00	89.750	162.450	6537.09	2877.48	-1953.23	3179.73	1679056.00	14345123.30	39°30'10.9607"N	80°51'46.8681"W	3731.73	121.561	1.15	-0.26	-1.12	
11323.00	89.970	162.580	6537.32	2972.45	-2043.84	3208.27	1679084.53	14345032.73	39°30'10.0648"N	80°51'46.5057"W	3803.98	122.499	0.27	0.23	0.14	
11417.00	89.820	163.860	6537.49	3066.38	-2133.84	3235.41	1679111.66	14344942.77	39°30'9.1749"N	80°51'46.1613"W	3875.71	123.406	1.37	-0.16	1.36	
11512.00	89.880	164.590	6537.74	3161.24	-2225.26	3261.23	1679137.48	14344851.38	39°30'8.2710"N	80°51'45.8336"W	3948.09	124.307	0.77	0.06	0.77	
11607.00	89.910	163.070	6537.92	3256.13	-2316.50	3287.69	1679163.92	14344760.18	39°30'7.3688"N	80°51'45.4978"W	4021.82	125.168	1.60	0.03	-1.60	
11702.00	90.060	162.030	6537.94	3351.10	-2407.12	3316.18	1679192.40	14344669.59	39°30'6.4727"N	80°51'45.1362"W	4097.71	125.975	1.11	0.16	-1.09	
11797.00	89.910	161.750	6537.97	3446.09	-2497.42	3345.71	1679221.92	14344579.33	39°30'5.5799"N	80°51'44.7612"W	4175.03	126.740	0.33	-0.16	-0.29	
11892.00	90.120	162.670	6537.94	3541.07	-2587.87	3374.73	1679250.93	14344488.91	39°30'4.6854"N	80°51'44.3927"W	4252.75	127.482	0.99	0.22	0.97	
11987.00	90.340	160.920	6537.56	3636.06	-2678.11	3404.41	1679280.59	14344398.71	39°30'3.7931"N	80°51'44.0159"W	4331.55	128.191	1.86	0.23	-1.84	
12081.00	90.090	160.490	6537.21	3730.06	-2766.83	3435.47	1679311.64	14344310.02	39°30'2.9158"N	80°51'43.6214"W	4411.10	128.847	0.53	-0.27	-0.46	
12176.00	89.820	163.570	6537.28	3825.03	-2857.19	3464.78	1679340.94	14344219.71	39°30'2.0223"N	80°51'43.2493"W	4490.90	129.510	3.25	-0.28	3.24	
12271.00	90.220	164.010	6537.25	3919.93	-2948.41	3491.30	1679367.45	14344128.52	39°30'1.1203"N	80°51'42.9128"W	4569.71	130.181	0.63	0.42	0.46	
12366.00	90.280	167.390	6536.83	4014.61	-3040.45	3514.76	1679390.90	14344036.51	39°30'0.2103"N	80°51'42.6153"W	4647.35	130.862	3.56	0.06	3.56	
12461.00	90.830	167.350	6535.91	4109.04	-3133.15	3535.53	1679411.66	14343943.86	39°29'59.2938"N	80°51'42.3521"W	4724.04	131.547	0.58	0.58	-0.04	

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REFERENCE WELLPATH IDENTIFICATION			
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Field	Tyler	API	47-095-02617-0000
Facility	State Ridge Pad	Wellbore	Shimano Unit 2H AWB
Slot	Slot #08		

WELLPATH DATA (183 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
12556.00	89.750	161.570	6535.43	4203.83	-3224.63	3560.97	1679437.09	14343852.41	39°29'58.3893"N	80°51'42.0294"W	4804.04	132.162	6.19	-1.14	-6.08	
12651.00	89.690	159.380	6535.90	4298.82	-3314.16	3592.72	1679468.83	14343762.91	39°29'57.5039"N	80°51'41.6261"W	4887.87	132.691	2.31	-0.06	-2.31	
12745.00	89.850	161.030	6536.27	4392.80	-3402.61	3624.55	1679500.65	14343674.50	39°29'56.6293"N	80°51'41.2218"W	4971.43	133.191	1.76	0.17	1.76	
12840.00	89.880	160.090	6536.50	4487.80	-3492.19	3656.17	1679532.25	14343584.96	39°29'55.7435"N	80°51'40.8202"W	5055.98	133.686	0.99	0.03	-0.99	
12935.00	90.000	157.880	6536.60	4582.73	-3580.86	3690.23	1679566.30	14343496.32	39°29'54.8665"N	80°51'40.3874"W	5142.02	134.138	2.33	0.13	-2.33	
13030.00	89.910	157.200	6536.67	4677.54	-3668.66	3726.53	1679602.58	14343408.56	39°29'53.9983"N	80°51'39.9262"W	5229.35	134.552	0.72	-0.09	-0.72	
13125.00	89.480	157.150	6537.18	4772.32	-3756.22	3763.38	1679639.42	14343321.04	39°29'53.1323"N	80°51'39.4578"W	5317.16	134.945	0.46	-0.45	-0.05	
13219.00	89.450	157.990	6538.06	4866.13	-3843.10	3799.24	1679675.27	14343234.19	39°29'52.2731"N	80°51'39.0020"W	5404.04	135.329	0.89	-0.03	0.89	
13314.00	89.660	159.570	6538.79	4961.05	-3931.65	3833.63	1679709.64	14343145.67	39°29'51.3974"N	80°51'38.5651"W	5491.32	135.723	1.68	0.22	1.68	
13409.00	89.750	160.440	6539.28	5056.03	-4020.93	3866.11	1679742.11	14343056.43	39°29'50.5146"N	80°51'38.1525"W	5578.05	136.125	0.92	0.09	0.92	
13504.00	89.630	161.570	6539.80	5151.03	-4110.75	3897.03	1679773.02	14342966.64	39°29'49.6263"N	80°51'37.7599"W	5664.37	136.529	1.20	-0.13	1.19	
13599.00	89.480	161.500	6540.54	5246.02	-4200.86	3927.12	1679803.09	14342876.57	39°29'48.7353"N	80°51'37.3779"W	5750.60	136.929	0.17	-0.16	-0.07	
13693.00	89.450	161.560	6541.41	5340.01	-4290.01	3956.90	1679832.86	14342787.46	39°29'47.8537"N	80°51'36.9998"W	5836.20	137.313	0.07	-0.03	0.06	
13788.00	89.510	163.420	6542.28	5434.98	-4380.60	3985.48	1679861.43	14342696.90	39°29'46.9579"N	80°51'36.6370"W	5922.30	137.704	1.96	0.06	1.96	
13883.00	89.780	164.060	6542.86	5529.88	-4471.80	4012.07	1679888.02	14342605.74	39°29'46.0562"N	80°51'36.2995"W	6007.81	138.102	0.73	0.28	0.67	
13978.00	89.750	161.810	6543.25	5624.82	-4562.61	4039.95	1679915.88	14342514.97	39°29'45.1583"N	80°51'35.9457"W	6094.15	138.477	2.37	-0.03	-2.37	
14073.00	89.850	161.130	6543.59	5719.82	-4652.68	4070.14	1679946.06	14342424.93	39°29'44.2676"N	80°51'35.5624"W	6181.71	138.821	0.72	0.11	-0.72	
14167.00	89.780	162.630	6543.89	5813.81	-4742.02	4099.38	1679975.28	14342335.63	39°29'43.3842"N	80°51'35.1812"W	6268.30	139.157	1.60	-0.07	1.60	
14262.00	89.750	163.840	6544.28	5908.74	-4832.98	4126.78	1680002.67	14342244.71	39°29'42.4848"N	80°51'34.8435"W	6355.15	139.507	1.27	-0.03	1.27	
14357.00	89.630	164.720	6544.79	6003.59	-4924.42	4152.52	1680028.40	14342153.30	39°29'41.5806"N	80°51'34.5170"W	6441.53	139.861	0.93	-0.13	0.93	
14452.00	89.850	163.310	6545.22	6098.46	-5015.75	4178.68	1680054.55	14342062.01	39°29'40.6776"N	80°51'34.1851"W	6528.33	140.202	1.50	0.23	-1.48	
14547.00	89.880	162.110	6545.45	6193.43	-5106.45	4206.91	1680082.77	14341971.34	39°29'39.7807"N	80°51'33.8268"W	6616.19	140.517	1.26	0.03	-1.26	
14642.00	90.400	161.050	6545.22	6288.42	-5196.58	4236.93	1680112.78	14341881.25	39°29'38.8894"N	80°51'33.4457"W	6704.93	140.809	1.24	0.55	-1.12	
14736.00	90.370	159.300	6544.58	6382.40	-5285.01	4268.81	1680144.64	14341792.86	39°29'38.0150"N	80°51'33.0408"W	6793.67	141.071	1.86	-0.03	-1.86	
14831.00	89.850	158.310	6544.40	6477.32	-5373.58	4303.15	1680176.98	14341704.32	39°29'37.1391"N	80°51'32.6045"W	6884.22	141.312	1.18	-0.55	-1.04	
14926.00	89.940	156.660	6544.58	6572.13	-5461.33	4339.53	1680215.34	14341616.60	39°29'36.2712"N	80°51'32.1422"W	6975.51	141.530	1.74	0.09	-1.74	
15021.00	89.940	157.990	6544.67	6666.92	-5548.99	4376.15	1680251.95	14341528.98	39°29'35.4043"N	80°51'31.6769"W	7066.96	141.739	1.40	0.00	1.40	
15116.00	89.970	158.050	6544.75	6761.78	-5637.08	4411.71	1680287.49	14341440.92	39°29'34.5331"N	80°51'31.2251"W	7158.20	141.952	0.07	0.03	0.06	
15210.00	89.910	161.100	6544.85	6855.74	-5725.16	4444.51	1680320.28	14341352.88	39°29'33.6621"N	80°51'30.8085"W	7247.84	142.177	3.25	-0.06	3.24	
15305.00	89.970	166.700	6544.95	6950.59	-5816.40	4470.84	1680346.60	14341261.68	39°29'32.7599"N	80°51'30.4744"W	7336.14	142.452	5.90	0.06	5.89	

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**Actual Wellpath Report**  
 Shimano Unit 2H AWP Proj: 15440'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Shimano Unit 2H
Field	Tyler	API	47-095-02617-0000
Facility	State Ridge Pad	Wellbore	Shimano Unit 2H AWB
Slot	Slot #08		

WELLPATH DATA (183 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 (ft/100ft)	Build Rate (ft/100ft)	Turn Rate (ft/100ft)	Comments
15400.00	90.060	167.600	6544.92	7045.06	-5909.02	4491.97	1680367.72	14341169.09	39°29'31.8442"N	80°51'30.2068"W	7422.56	142.758	0.95	0.09	0.95	
15416.00	89.940	167.390	6544.92	7060.96	-5924.64	4495.43	1680371.18	14341153.48	39°29'31.6898"N	80°51'30.1629"W	7437.09	142.810	1.51	-0.75	-1.31	
15440.00‡	89.940	167.390	6544.95	7084.82	-5948.06	4500.67	1680376.42	14341130.07	39°29'31.4582"N	80°51'30.0965"W	7458.92	142.887	0.00	0.00	0.00	Projected MD at TD: 15440'

HOLE & CASING SECTIONS - Ref Wellbore: Shimano Unit 2H AWB Ref Wellpath: Shimano Unit 2H AWP Proj: 15440'									
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	0.42	0.20
17.5in Open Hole	105.50	387.50	282.00	105.50	387.49	0.42	0.20	2.16	1.22
13.375in Casing Surface	25.50	387.50	362.00	25.50	387.49	0.00	0.00	2.16	1.22
12.25in Open Hole	387.50	2762.50	2375.00	387.49	2573.31	2.16	1.22	699.73	497.76
9.625in Casing Intermediate	25.50	2762.50	2737.00	25.50	2573.31	0.00	0.00	699.73	497.76
8.75in Open Hole	2762.50	6522.50	3760.00	2573.31	5896.45	699.73	497.76	2084.28	1547.08
8.5in Open Hole	6522.50	15440.00	8917.50	5896.45	6544.95	2084.28	1547.08	-5948.06	4500.67
5.5in Casing Production	25.50	15440.00	15414.50	25.50	6544.95	0.00	0.00	-5948.06	4500.67

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Field	Tyler	API	47-095-02617-0000
Facility	State Ridge Pad	Wellbore	Shimano Unit 2H AWB
Slot	Slot #08		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Shimano Unit 2H - POE - Plat	6463.00	1710.45	1883.75	1677760.54	14348785.51	39°30'47.1892"N	80°52'3.3326"W	point
Shimano Unit 2H - POE - Rev-1	6480.00	1701.49	1885.66	1677762.45	14348776.56	39°30'47.1007"N	80°52'3.3083"W	point
Shimano Unit 2H - BHL - Plat	6503.00	-5998.02	4535.85	1680411.58	14341080.13	39°29'30.9639"N	80°51'29.6489"W	point
Shimano Unit 2H - BHL - Rev-2	6514.00	-5950.61	4519.60	1680395.34	14341127.52	39°29'31.4327"N	80°51'29.8552"W	point

WELLPATH COMPOSITION - Ref Wellbore: Shimano Unit 2H AWB Ref Wellpath: Shimano Unit 2H AWP Proj: 15440'					
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
25.50	365.50	Gyrodata 2015 - GC+WIR+DPIPE	01_Gyrodata MS Gyro <17-1/2">(100'-355')	Shimano Unit 2H AWB	1/2/2020
365.50	2719.50	OWSG MWD rev2 + HRGM	02_WFT EM <12-1/4">(355'x470'-2709')	Shimano Unit 2H AWB	1/2/2020
2719.50	6448.50	OWSG MWD rev2 + HRGM	03_WFT EM <8-3/4">(2709'x2805'-6438')	Shimano Unit 2H AWB	1/2/2020
6448.50	15440.00	BH AutoTrak Curve (2019) (Short spacing)	04_BH AT Curve <8-1/2">(6448.5'x6497'-15416')	Shimano Unit 2H AWB	1/14/2020

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Field	Tyler	API	47-095-02617-0000
Facility	State Ridge Pad	Wellbore	Shimano Unit 2H AWB
Slot	Slot #08		

COMMENTS
<p><b>Wellpath general comments</b> API: 47-095-02617-0000 BHI Job #: 110231236A Rig: H&amp;P 317 Duration: 01/15/2020-01/16/2020 Gyrodatta MS Gyro &lt;17-1/2"&gt;(100'-355') WFT EM &lt;12-1/4"&gt;(355')(470'-2709') WFT EM &lt;8-3/4"&gt;(2709')(2805'-6438') BH AT Curve &lt;8-1/2"&gt;(6448.5')(6497'-15416') Middlesex: 7031' MD Burkett: 7182' MD Tully: 7228' MD Marcellus POE: 7373' MD Projected MD at TD: 15440'</p>

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