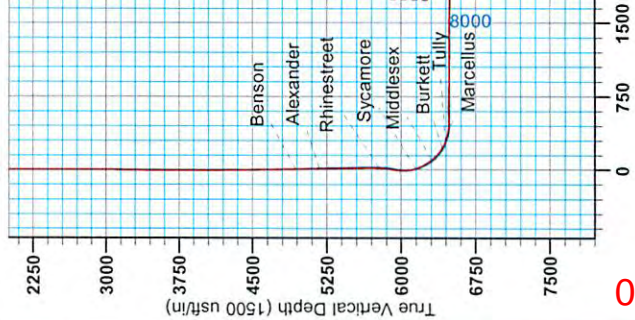




Antero Resources  
 DeBerry Unit 1H  
 Ritchie County WV  
 Northing: 14233087.17  
 Easting: 1668409.26  
 As Drilled

Office of Oil and Gas  
 WV Dept. of Environmental Protection



**WELL DETAILS:** DeBerry Unit 1H

Ground Level: 1075.0  
 Easting: 1668409.26  
 Northing: 14233087.17  
 Longitude: 80° 54' 43.10" W  
 Slot

**PROJECT DETAILS:** Ritchie County WV

Geoidetic System: Universal Transverse Mercator (US Survey Feet)  
 Datum: NAD 83 (NAD83 CONUS)  
 Ellipsoid: Clarke 1866  
 Zone: 17N (84 W to 78 W)  
 System Datum: Mean Sea Level

**REFERENCE INFORMATION**

Circlewise (NS) Reference: Well DeBerry Unit 1H, Grid North  
 Vertical (VD) Reference: DeBerry Unit 1H, 1075.0 ft @ 1099.0 usft  
 Measured Depth Reference: DeBerry Unit 1H, 1075.0 ft @ 1099.0 usft  
 Calculation Method: Minimum Curvature

Genie Lightfoot  
 11-02, March 04 2014  
 Scientific Drilling  
 421 South Eagle Lane  
 Oklahoma City OK 73128

Scientific Drilling

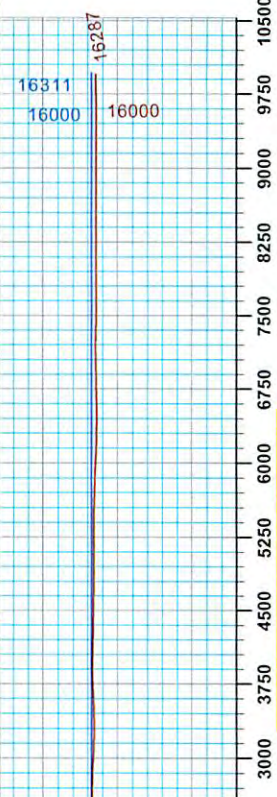
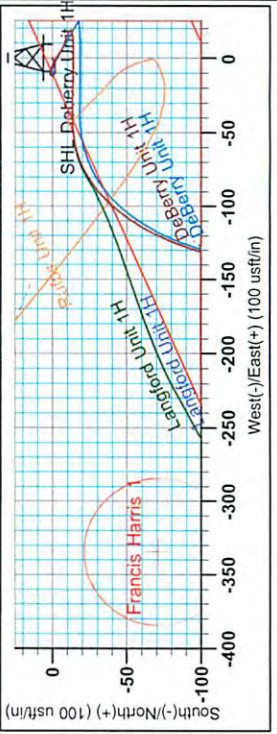
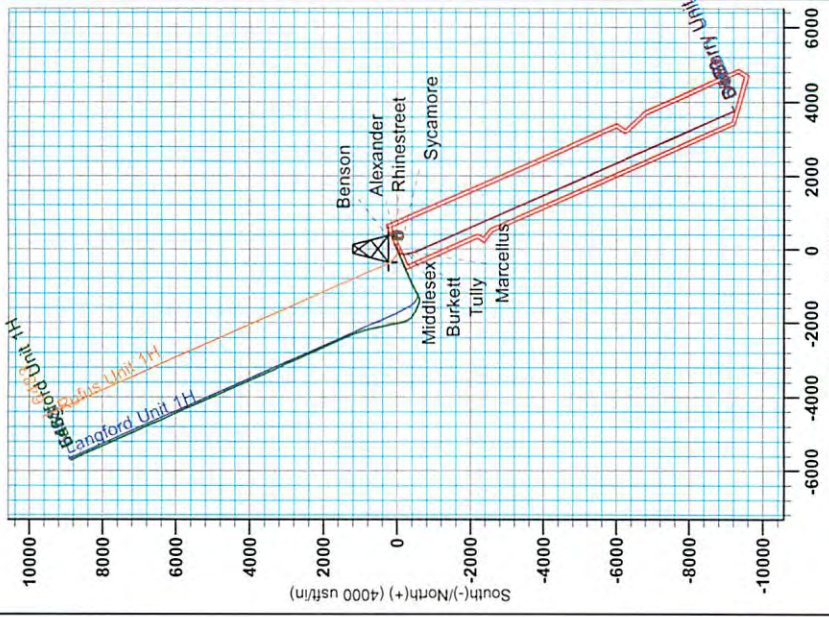
Azimuths to Grid North  
 True North: -0.06°  
 Magnetic North: -8.35°  
 Magnetic Field  
 Strength: 52400.1nT  
 Dip Angle: 66.86°  
 Date: 02/20/13  
 Model: IGRF2010

**LEGEND**

- Rufus Unit 1H, Original Wellpath, As Drilled V0
- DeBerry Unit 1H, Original Wellpath, Plan 3 Revised V0
- Langford Unit 1H, Original Wellpath, As Drilled V0
- Langford Unit 1H, Sidetrack Wellpath, As Drilled ST1 V0
- As Drilled

**DESIGN TARGET DETAILS**

Name	TVD	+N/S	+E/W	Northing	Easting	Latitude	Longitude
SHL DeBerry Unit 1H	0.0	0.0	0.0	1668409.2639	14233087.17	11° 43' 33.33" N	80° 54' 4.310" W
Actual BHL DeBerry Unit 1H	6532.7	-9211.7	3767.41	42233875.46	1672176.6539	10° 12' 20.5" N	60° 53' 16.584" W



06/12/2015



# Antero Resources

Ritchie County WV  
DeBerry/Rufus/Langford  
DeBerry Unit 1H  
Original Wellpath

Design: As Drilled

## EOW Completion Report

04 March, 2014

Received  
APR 27 2015  
Office of Oil and Gas  
West Virginia Department of Environmental Protection



06/12/2015

<b>Company:</b>	Antero Resources	<b>Local Co-ordinate Reference:</b>	Well DeBerry Unit 1H
<b>Project:</b>	Ritchie County WV	<b>TVD Reference:</b>	DeBerry 1H 1075 GL + 24 KB @ 1099.0usft
<b>Site:</b>	DeBerry/Rufus/Langford	<b>MD Reference:</b>	DeBerry 1H 1075 GL + 24 KB @ 1099.0usft
<b>Well:</b>	DeBerry Unit 1H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Original Wellpath	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	As Drilled	<b>Database:</b>	Oklahoma District

<b>Project</b>	Ritchie County WV, Ritchie County WV, WV North		
<b>Map System:</b>	Universal Transverse Mercator (US Survey Fee	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	Zone 17N (84 W to 78 W)		

<b>Site</b>	DeBerry/Rufus/Langford, Site Center: Deberry 1H				
<b>Site Position:</b>	<b>Northing:</b>	14,233,087.17 usft	<b>Latitude:</b>	39° 11' 43.333 N	
<b>From:</b> Map	<b>Easting:</b>	1,668,409.26 usft	<b>Longitude:</b>	80° 54' 4.310 W	
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	13-3/16"	<b>Grid Convergence:</b>	0.06 °

<b>Well</b>	DeBerry Unit 1H, Marcellus				
<b>Well Position</b>	<b>+N/-S</b>	0.0 usft	<b>Northing:</b>	14,233,087.17 usft	
	<b>+E/-W</b>	0.0 usft	<b>Easting:</b>	1,668,409.26 usft	
<b>Position Uncertainty</b>	2.0 usft	<b>Wellhead Elevation:</b>	1,099.0 usft	<b>Ground Level:</b>	1,075.0 usft

<b>Wellbore</b>	Original Wellpath
-----------------	-------------------

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	4/24/2013	-8.32	66.86	52,400

<b>Design</b>	As Drilled
---------------	------------

<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.0	0.0	0.0	156.26	

Received  
APR 27 2015

<b>Survey Program</b>	<b>Date</b>	3/4/2014			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
111.0	2,507.9	Survey #1 Def Gyro to Int (Original Wellpa	SDI Standard Keeper	Scientific Drilling Intl. Standard Wireline Keeper	
2,650.0	4,629.0	Survey #2 Gyro SS (Original Wellpath)	SDI Standard Keeper	Scientific Drilling Intl. Standard Wireline Keeper	
4,849.0	16,287.0	Survey #4 MWD (Original Wellpath)	MWD SDI	MWD - Standard ver 1.0.1	

Office of Oil and Gas  
WV Dept. of Environmental Protection

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00
111.0	0.30	265.37	111.0	0.0	-0.3	-0.1	0.27
211.0	0.28	264.72	211.0	-0.1	-0.8	-0.3	0.02
311.0	0.18	254.63	311.0	-0.1	-1.2	-0.4	0.11
411.0	0.12	258.44	411.0	-0.2	-1.4	-0.4	0.06
511.0	0.14	208.51	511.0	-0.3	-1.6	-0.4	0.11
611.0	0.14	222.02	611.0	-0.5	-1.7	-0.2	0.03
711.0	0.07	182.78	711.0	-0.7	-1.8	-0.1	0.10
811.0	0.12	176.17	811.0	-0.8	-1.8	0.0	0.05
911.0	0.13	193.44	911.0	-1.1	-1.8	0.2	0.04



Received

APR 27 2015



<b>Company:</b>	Antero Resources	<b>Local Co-ordinate Reference:</b>	Well DeBerry Unit 1H
<b>Project:</b>	Ritchie County WV	<b>TVD Reference:</b>	DeBerry 1H 1075 GL + 24 KB @ 1099.0usft
<b>Site:</b>	DeBerry/Rufus/Langford	<b>MD Reference:</b>	DeBerry 1H 1075 GL + 24 KB @ 1099.0usft
<b>Well:</b>	DeBerry Unit 1H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Original Wellpath	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	As Drilled	<b>Database:</b>	Oklahoma District

Survey									
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)		
1,011.0	0.14	180.26	1,011.0	-1.3	-1.9	0.4	0.03		
1,111.0	0.05	254.49	1,111.0	-1.4	-1.9	0.5	0.14		
1,211.0	0.11	241.23	1,211.0	-1.5	-2.0	0.5	0.06		
1,311.0	0.08	303.48	1,311.0	-1.5	-2.2	0.5	0.10		
1,411.0	0.09	288.81	1,411.0	-1.4	-2.3	0.4	0.02		
1,511.0	0.17	222.18	1,511.0	-1.5	-2.5	0.4	0.16		
1,611.0	0.13	244.22	1,611.0	-1.7	-2.7	0.4	0.07		
1,711.0	0.18	282.69	1,711.0	-1.7	-2.9	0.4	0.11		
1,811.0	0.14	250.87	1,811.0	-1.7	-3.2	0.2	0.10		
1,911.0	0.11	213.50	1,911.0	-1.8	-3.4	0.3	0.08		
2,011.0	0.07	285.35	2,011.0	-1.9	-3.5	0.3	0.11		
2,111.0	0.10	239.88	2,111.0	-1.9	-3.6	0.3	0.07		
2,211.0	0.01	222.49	2,211.0	-1.9	-3.7	0.3	0.09		
2,311.0	0.08	300.99	2,311.0	-1.9	-3.8	0.2	0.08		
2,411.0	0.09	254.40	2,411.0	-1.9	-3.9	0.2	0.07		
2,507.9	0.20	272.46	2,507.9	-1.9	-4.2	0.1	0.12		
2,650.0	0.39	316.56	2,650.0	-1.6	-4.7	-0.5	0.20		
2,857.0	0.47	249.36	2,857.0	-1.3	-6.0	-1.2	0.23		
3,045.0	0.43	263.80	3,045.0	-1.7	-7.4	-1.4	0.06		
3,215.0	0.46	250.53	3,215.0	-2.0	-8.7	-1.7	0.06		
3,405.0	0.35	303.48	3,405.0	-1.9	-9.9	-2.2	0.20		
3,592.0	0.44	308.64	3,592.0	-1.2	-11.0	-3.4	0.05		
3,873.0	0.32	328.45	3,873.0	0.2	-12.2	-5.1	0.06		
4,180.0	0.68	68.93	4,180.0	1.6	-11.0	-5.8	0.26		
4,347.0	0.97	108.99	4,346.9	1.5	-8.7	-4.8	0.38		
4,629.0	1.28	115.41	4,628.9	-0.7	-3.6	-0.8	0.12		
4,849.0	1.95	123.23	4,848.8	-3.8	1.8	4.2	0.32		
4,881.0	1.74	135.26	4,880.8	-4.4	2.6	5.1	1.37		
4,913.0	1.58	115.99	4,912.8	-4.9	3.3	5.9	1.80		
4,939.0	1.54	129.00	4,938.8	-5.3	3.9	6.4	1.37		
<b>Benson</b>									
4,943.0	1.54	131.04	4,942.8	-5.4	4.0	6.5	1.37		
5,036.0	1.90	114.80	5,035.7	-6.9	6.3	8.8	0.65		
5,130.0	1.38	114.76	5,129.7	-8.0	8.8	10.8	0.55		
5,174.0	1.41	108.35	5,173.7	-8.4	9.7	11.6	0.36		
<b>Alexander</b>									
5,225.0	1.46	101.32	5,224.6	-8.7	11.0	12.4	0.36		
5,319.0	1.22	96.99	5,318.6	-9.1	13.1	13.6	0.28		
5,413.0	0.90	130.74	5,412.6	-9.7	14.7	14.8	0.73		
5,507.0	0.51	92.24	5,506.6	-10.2	15.7	15.6	0.63		
5,601.0	1.35	127.31	5,600.6	-10.9	17.0	16.8	1.04		
5,634.0	1.74	131.52	5,633.6	-11.4	17.7	17.6	1.23		
5,675.0	1.67	124.44	5,674.6	-12.2	18.6	18.6	0.54		
5,722.0	2.41	241.95	5,721.5	-13.0	18.3	19.3	7.47		
5,769.0	8.19	266.29	5,768.3	-13.7	14.1	18.2	12.93		



<b>Company:</b>	Antero Resources	<b>Local Co-ordinate Reference:</b>	Well DeBerry Unit 1H
<b>Project:</b>	Ritchie County WV	<b>TVD Reference:</b>	DeBerry 1H-1075 GL + 24 KB @ 1099.0usft
<b>Site:</b>	DeBerry/Rufus/Langford	<b>MD Reference:</b>	DeBerry 1H-1075 GL + 24 KB @ 1099.0usft
<b>Well:</b>	DeBerry Unit 1H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Original Wellpath	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	As Drilled	<b>Database:</b>	Oklahoma District

Survey								
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	
5,778.0	9.11	267.14	5,777.2	-13.8	12.7	17.7	10.32	
<b>Rhinestreet</b>								
5,816.0	13.01	269.41	5,814.5	-14.0	5.5	15.0	10.32	
5,863.0	17.85	270.99	5,859.8	-13.9	-7.0	9.9	10.34	
5,910.0	22.80	270.52	5,903.9	-13.7	-23.4	3.1	10.54	
5,957.0	24.01	270.20	5,947.0	-13.6	-42.0	-4.5	2.59	
6,004.0	23.22	256.37	5,990.1	-15.7	-60.6	-10.0	11.88	
6,051.0	23.84	240.57	6,033.2	-22.6	-77.9	-10.7	13.45	
6,098.0	25.48	227.19	6,076.0	-34.1	-93.6	-6.4	12.35	
6,145.0	27.60	216.11	6,118.0	-49.8	-107.4	2.3	11.44	
6,174.0	29.16	210.22	6,143.6	-61.4	-115.0	9.9	11.05	
<b>Sycamore</b>								
6,192.0	30.25	206.86	6,159.2	-69.2	-119.2	15.3	11.05	
6,239.0	33.25	198.39	6,199.2	-92.0	-128.6	32.4	11.42	
6,286.0	35.69	190.97	6,237.9	-117.7	-135.3	53.3	10.33	
6,333.0	39.51	186.43	6,275.2	-146.0	-139.6	77.5	10.04	
6,374.0	42.25	181.69	6,306.2	-172.8	-141.5	101.2	10.10	
<b>Middlesex</b>								
6,380.0	42.67	181.04	6,310.6	-176.8	-141.6	104.9	10.10	
6,427.0	47.13	176.37	6,343.9	-210.0	-140.8	135.5	11.80	
6,475.0	52.15	174.08	6,375.0	-246.4	-137.7	170.1	11.07	
6,522.0	57.77	170.00	6,402.0	-284.5	-132.3	207.1	13.91	
6,542.0	59.30	169.44	6,412.4	-301.3	-129.3	223.7	7.99	
<b>Burkett</b>								
6,569.0	61.36	168.72	6,425.8	-324.3	-124.8	246.6	7.99	
6,610.0	66.63	167.16	6,443.7	-360.3	-117.1	282.7	13.30	
<b>Tully</b>								
6,616.0	67.40	166.94	6,446.1	-365.7	-115.9	288.1	13.30	
6,663.0	73.49	167.06	6,461.8	-408.8	-105.9	331.6	12.96	
6,672.0	74.31	166.55	6,464.3	-417.2	-104.0	340.1	10.56	
<b>Marcellus</b>								
6,710.0	77.76	164.45	6,473.5	-452.9	-94.7	376.5	10.56	
6,757.0	84.82	161.80	6,480.6	-497.4	-81.2	422.6	16.02	
6,814.0	92.51	159.63	6,481.9	-551.1	-62.4	479.3	14.02	
6,851.0	92.62	157.27	6,480.3	-585.5	-48.9	516.3	6.38	
6,945.0	89.83	155.06	6,478.2	-671.4	-10.9	610.2	3.79	
7,039.0	89.03	155.51	6,479.2	-756.8	28.4	704.2	0.98	
7,134.0	88.59	155.78	6,481.2	-843.3	67.6	799.2	0.54	
7,227.0	88.39	156.16	6,483.6	-928.2	105.4	892.1	0.46	
7,322.0	90.30	156.20	6,484.7	-1,015.1	143.8	987.1	2.01	
7,416.0	90.80	156.93	6,483.8	-1,101.4	181.2	1,081.1	0.94	
7,511.0	90.37	157.94	6,482.8	-1,189.1	217.6	1,176.1	1.16	
7,605.0	90.64	155.89	6,482.0	-1,275.6	254.5	1,270.1	2.20	
7,699.0	89.66	154.75	6,481.7	-1,361.0	293.7	1,364.1	1.60	
7,793.0	88.56	154.96	6,483.2	-1,446.1	333.7	1,458.0	1.19	



EOW Completion Report

Received

APR 27 2015



<b>Company:</b>	Antero Resources	<b>Local Co-ordinate Reference:</b>	Well DeBerry Unit 1H
<b>Project:</b>	Ritchie County WV	<b>TVD Reference:</b>	DeBerry 1H 1075 GL + 24 KB @ 1099.0usft
<b>Site:</b>	DeBerry/Rufus/Langford	<b>MD Reference:</b>	DeBerry 1H 1075 GL + 24 KB @ 1099.0usft
<b>Well:</b>	DeBerry Unit 1H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Original Wellpath	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	As Drilled	<b>Database:</b>	Oklahoma District

Survey							
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
7,887.0	88.39	155.20	6,485.7	-1,531.3	373.3	1,552.0	0.31
7,982.0	87.62	154.81	6,489.0	-1,617.3	413.4	1,646.9	0.91
8,076.0	90.27	156.77	6,490.7	-1,703.0	451.9	1,740.9	3.51
8,170.0	89.40	154.56	6,491.0	-1,788.7	490.7	1,834.9	2.53
8,264.0	89.87	156.05	6,491.6	-1,874.1	529.9	1,928.8	1.66
8,358.0	88.79	155.27	6,492.7	-1,959.7	568.7	2,022.8	1.42
8,452.0	90.30	156.11	6,493.5	-2,045.4	607.4	2,116.8	1.84
8,546.0	89.16	156.63	6,493.9	-2,131.5	645.0	2,210.8	1.33
8,641.0	90.13	156.69	6,494.5	-2,218.7	682.7	2,305.8	1.02
8,735.0	90.22	156.03	6,494.2	-2,304.8	720.4	2,399.8	0.71
8,829.0	89.43	156.82	6,494.5	-2,391.0	758.0	2,493.8	1.19
8,922.0	89.03	156.64	6,495.7	-2,476.4	794.7	2,586.8	0.47
9,016.0	88.76	155.88	6,497.6	-2,562.4	832.5	2,680.8	0.86
9,110.0	88.42	155.37	6,499.9	-2,648.0	871.3	2,774.7	0.65
9,205.0	87.85	155.38	6,503.0	-2,734.3	910.9	2,869.7	0.60
9,298.0	87.32	154.80	6,506.9	-2,818.6	950.0	2,962.6	0.84
9,393.0	87.48	155.28	6,511.2	-2,904.7	990.1	3,057.5	0.53
9,487.0	89.26	156.96	6,513.9	-2,990.6	1,028.1	3,151.4	2.60
9,580.0	89.36	156.40	6,515.0	-3,076.0	1,064.9	3,244.4	0.61
9,675.0	91.58	157.43	6,514.2	-3,163.3	1,102.1	3,339.4	2.58
9,769.0	91.07	158.15	6,512.0	-3,250.3	1,137.7	3,433.3	0.94
9,863.0	90.74	159.04	6,510.5	-3,337.9	1,172.0	3,527.2	1.01
9,957.0	92.28	155.64	6,508.1	-3,424.5	1,208.2	3,621.2	3.97
10,051.0	92.52	156.07	6,504.1	-3,510.3	1,246.6	3,715.1	0.52
10,145.0	90.47	155.21	6,501.7	-3,595.8	1,285.3	3,809.0	2.36
10,239.0	90.03	154.42	6,501.3	-3,680.9	1,325.3	3,903.0	0.96
10,333.0	90.27	154.42	6,501.0	-3,765.7	1,365.9	3,997.0	0.26
10,427.0	88.92	156.54	6,501.7	-3,851.2	1,404.9	4,090.9	2.67
10,522.0	89.23	157.11	6,503.2	-3,938.5	1,442.3	4,185.9	0.68
10,616.0	88.99	157.19	6,504.7	-4,025.1	1,478.8	4,279.9	0.27
10,710.0	89.63	155.82	6,505.8	-4,111.3	1,516.3	4,373.9	1.61
10,804.0	88.66	157.21	6,507.2	-4,197.5	1,553.7	4,467.9	1.80
10,898.0	88.59	156.38	6,509.5	-4,283.9	1,590.8	4,561.8	0.89
10,992.0	89.83	156.08	6,510.8	-4,369.9	1,628.7	4,655.8	1.36
11,086.0	89.60	157.77	6,511.2	-4,456.4	1,665.5	4,749.8	1.81
11,180.0	89.80	157.30	6,511.7	-4,543.3	1,701.4	4,843.8	0.54
11,271.0	89.06	156.65	6,512.6	-4,627.0	1,737.0	4,934.8	1.08
11,363.0	89.36	156.65	6,513.9	-4,711.5	1,773.5	5,026.8	0.33
11,454.0	90.17	156.71	6,514.3	-4,795.0	1,809.5	5,117.8	0.89
11,544.0	90.30	156.13	6,513.9	-4,877.5	1,845.5	5,207.8	0.66
11,636.0	89.40	156.57	6,514.1	-4,961.8	1,882.4	5,299.8	1.09
11,727.0	89.70	156.10	6,514.9	-5,045.1	1,918.9	5,390.8	0.61
11,817.0	89.90	156.32	6,515.2	-5,127.5	1,955.2	5,480.8	0.33
11,909.0	89.70	155.88	6,515.5	-5,211.6	1,992.5	5,572.8	0.53



<b>Company:</b>	Antero Resources	<b>Local Co-ordinate Reference:</b>	Well DeBerry Unit 1H
<b>Project:</b>	Ritchie County WV	<b>TVD Reference:</b>	DeBerry 1H 1075 GL + 24 KB @ 1099.0usft
<b>Site:</b>	DeBerry/Rufus/Langford	<b>MD Reference:</b>	DeBerry 1H 1075 GL + 24 KB @ 1099.0usft
<b>Well:</b>	DeBerry Unit 1H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Original Wellpath	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	As Drilled	<b>Database:</b>	Oklahoma District

Survey								
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	
12,000.0	89.29	155.36	6,516.3	-5,294.5	2,030.1	5,663.7	0.73	
12,091.0	87.89	153.55	6,518.5	-5,376.6	2,069.3	5,754.7	2.51	
12,182.0	87.11	156.75	6,522.5	-5,459.0	2,107.5	5,845.6	3.62	
12,273.0	87.71	156.99	6,526.6	-5,542.6	2,143.2	5,936.5	0.71	
12,367.0	87.04	156.47	6,530.9	-5,628.9	2,180.3	6,030.3	0.90	
12,461.0	87.62	156.48	6,535.3	-5,715.0	2,217.8	6,124.2	0.62	
12,555.0	88.59	156.64	6,538.4	-5,801.2	2,255.1	6,218.2	1.05	
12,648.0	89.23	156.45	6,540.2	-5,886.5	2,292.1	6,311.2	0.72	
12,742.0	88.86	155.42	6,541.7	-5,972.3	2,330.5	6,405.2	1.16	
12,837.0	90.81	155.96	6,542.0	-6,058.9	2,369.6	6,500.1	2.13	
12,931.0	89.93	152.06	6,541.4	-6,143.4	2,410.8	6,594.1	4.25	
13,025.0	92.55	154.66	6,539.4	-6,227.3	2,452.9	6,687.9	3.93	
13,119.0	91.68	155.19	6,535.9	-6,312.4	2,492.7	6,781.8	1.08	
13,213.0	92.11	155.81	6,532.8	-6,397.9	2,531.7	6,875.7	0.80	
13,307.0	89.90	156.79	6,531.1	-6,484.0	2,569.4	6,969.7	2.57	
13,401.0	89.46	157.33	6,531.7	-6,570.5	2,606.1	7,063.7	0.74	
13,496.0	89.63	158.50	6,532.4	-6,658.6	2,641.8	7,158.7	1.24	
13,590.0	90.23	156.57	6,532.5	-6,745.4	2,677.7	7,252.6	2.15	
13,684.0	89.03	157.66	6,533.1	-6,832.0	2,714.3	7,346.6	1.72	
13,778.0	88.39	156.45	6,535.3	-6,918.5	2,750.9	7,440.6	1.46	
13,872.0	89.73	158.52	6,536.8	-7,005.4	2,786.9	7,534.5	2.62	
13,966.0	90.10	158.01	6,536.9	-7,092.7	2,821.7	7,628.5	0.67	
14,060.0	91.04	157.30	6,536.0	-7,179.6	2,857.4	7,722.5	1.25	
14,154.0	89.36	156.20	6,535.7	-7,266.0	2,894.5	7,816.4	2.14	
14,248.0	88.66	155.89	6,537.3	-7,351.9	2,932.7	7,910.4	0.81	
14,342.0	89.60	156.64	6,538.7	-7,437.9	2,970.5	8,004.4	1.28	
14,436.0	89.29	156.96	6,539.6	-7,524.3	3,007.6	8,098.4	0.47	
14,530.0	90.67	158.83	6,539.7	-7,611.4	3,042.9	8,192.4	2.47	
14,625.0	91.68	155.81	6,537.7	-7,699.0	3,079.5	8,287.3	3.35	
14,718.0	89.63	156.07	6,536.7	-7,783.9	3,117.5	8,380.3	2.22	
14,812.0	88.35	155.27	6,538.3	-7,869.6	3,156.2	8,474.3	1.61	
14,906.0	90.30	155.50	6,539.4	-7,955.0	3,195.3	8,568.3	2.09	
15,000.0	91.38	156.91	6,538.1	-8,041.0	3,233.2	8,662.2	1.89	
15,094.0	90.27	154.88	6,536.7	-8,126.8	3,271.6	8,756.2	2.46	
15,189.0	89.43	153.80	6,536.9	-8,212.4	3,312.8	8,851.2	1.44	
15,282.0	88.86	155.25	6,538.3	-8,296.4	3,352.8	8,944.1	1.68	
15,376.0	90.00	155.39	6,539.3	-8,381.8	3,392.0	9,038.1	1.22	
15,470.0	91.04	157.04	6,538.4	-8,467.8	3,429.9	9,132.1	2.07	
15,564.0	91.04	155.97	6,536.7	-8,554.0	3,467.4	9,226.1	1.14	
15,658.0	90.24	156.15	6,535.7	-8,639.9	3,505.5	9,320.1	0.87	
15,752.0	89.90	154.65	6,535.5	-8,725.3	3,544.6	9,414.0	1.64	
15,846.0	89.73	155.04	6,535.9	-8,810.4	3,584.6	9,508.0	0.45	
15,940.0	90.74	156.39	6,535.5	-8,896.1	3,623.3	9,602.0	1.79	
16,034.0	90.34	156.54	6,534.6	-8,982.3	3,660.8	9,696.0	0.45	



<b>Company:</b>	Antero Resources	<b>Local Co-ordinate Reference:</b>	Well DeBerry Unit 1H
<b>Project:</b>	Ritchie County WV	<b>TVD Reference:</b>	DeBerry,1H,1075.GL + 24 KB @ 1099.0usft
<b>Site:</b>	DeBerry/Rufus/Langford	<b>MD Reference:</b>	DeBerry,1H,1075.GL + 24 KB @ 1099.0usft
<b>Well:</b>	DeBerry Unit 1H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Original Wellpath	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	As Drilled	<b>Database:</b>	Oklahoma District

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
16,128.0	90.44	154.98	6,533.9	-9,068.0	3,699.4	9,790.0	1.66
16,230.0	90.47	154.53	6,533.1	-9,160.2	3,742.9	9,892.0	0.44
16,287.0	90.47	154.53	6,532.7	-9,211.7	3,767.4	9,948.9	0.00

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
4,939.0	4,938.8	-5.3	3.9	Benson
5,174.0	5,173.7	-8.4	9.7	Alexander
5,778.0	5,777.2	-13.8	12.7	Rhinestreet
6,174.0	6,143.6	-61.4	-115.0	Sycamore
6,374.0	6,306.2	-172.8	-141.5	Middlesex
6,542.0	6,412.4	-301.3	-129.3	Burkett
6,610.0	6,443.7	-360.3	-117.1	Tully
6,672.0	6,464.3	-417.2	-104.0	Marcellus

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_