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JUN 15 2015

WV GEOLOGICAL SURVEY  
MORGANTOWN, WV



**Arters Unit 2H**  
**Doddridge County WV**  
**Northing: 14251310.15**  
**Easting: 1762647.79**  
**As Drilled**



Arters 1H 1050 GL + 25 KB @ 1075.0usft  
Gr: 1050.0

WELL DETAILS: Arters Unit 2H			
Ground Level:	1050.0	Longitude	
+N/-S	0.0	Latitude	0.01425131015
+E/-W	0.0	Longitude	14.4078888034
Northing	14251310.15	Latitude	16.3255586034
Easting	1762647.79	Longitude	16.38342342

**PROJECT DETAILS: Doddridge County WV**

Geodetic System: Universal Transverse Mercator (US Survey Feet)  
Datum: NAD 1927 (NADCON CONUS)  
Ellipsoid: Clarke 1866  
Zone: Zone 17N (84 W to 78 W)  
System Datum: Mean Sea Level

**LEGEND**

- Arters Unit 2H, Original Wellpath, Plan 4 Post Gyro V0
- As Drilled

**SITE DETAILS: Ruth/Waller/Caswell/Artes**

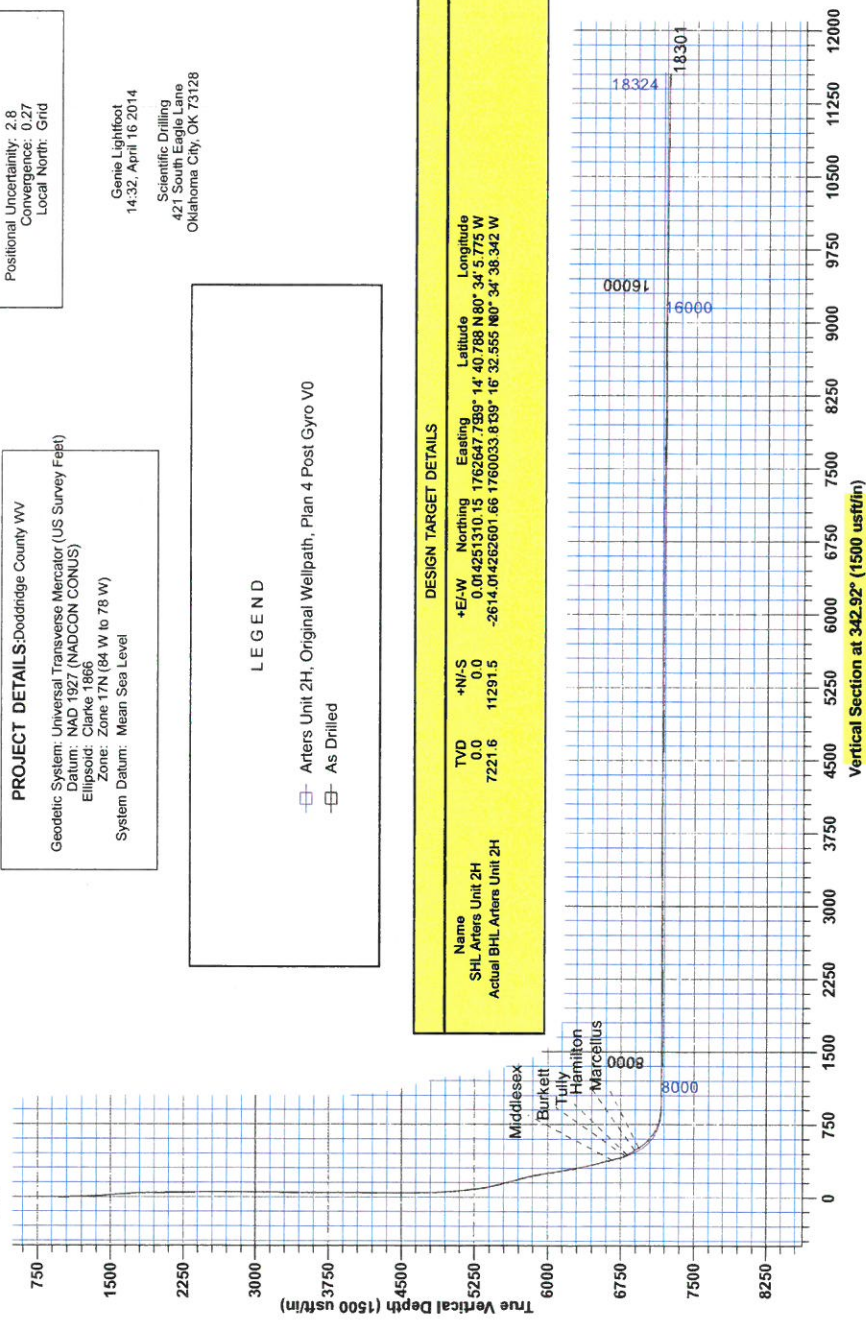
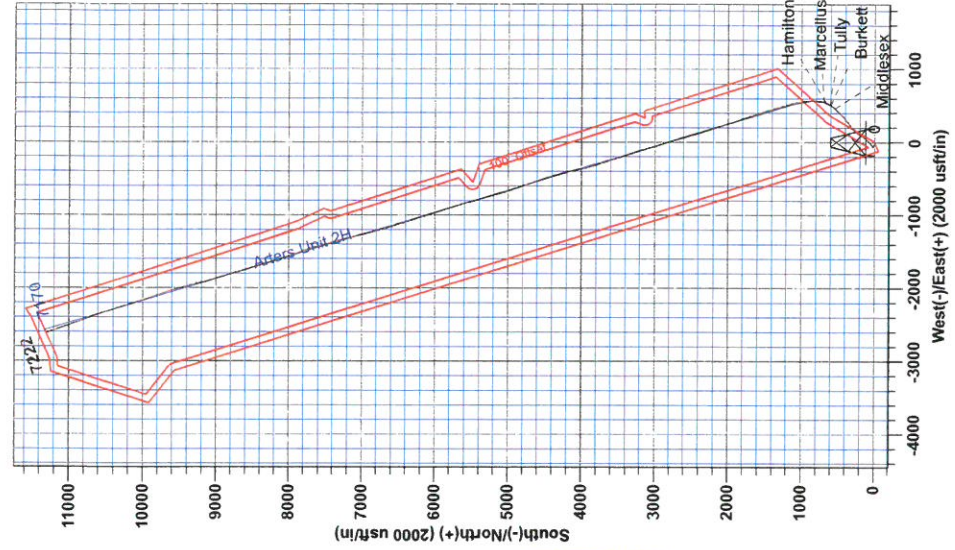
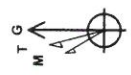
Center is Ruth Unit 1  
Site Centre Northing: 14251337.29  
Easting: 1762689.77

Positional Uncertainty: 2.8  
Convergence: 0.27  
Local North: Grid

Gene Lightfoot  
14.32, April 16 2014  
Scientific Drilling  
421 South Eagle Lane  
Oklahoma City, OK 73128

Azimuths to Grid North  
True North: -0.27°  
Magnetic North: -8.86°  
Magnetic Field  
Strength: 52314.4nT  
Dip Angle: 66.80°  
Date: 11/27/2013  
Model: IGRF2010

To convert Magnetic North to Grid, Subtract 8.86°  
To convert True North to Grid, Subtract 0.27°



DESIGN TARGET DETAILS					
Name	TVD	+N/-S	+E/-W	Northing	Longitude
SHL Arters Unit 2H	0.0	0.0	0.0	0.01425131015	14.4078888034
Actual BHL Arters Unit 2H	7221.6	11291.5	-2614.01426260166	1760033.8139	16.3255586034



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MORGANTOWN, WV

## **Antero Resources**

**Doddridge County WV  
Ruth/Walter/Caswell/Arters  
Arters Unit 2H  
Original Wellpath**

**Design: As Drilled**

## **EOW Completion Report**

**16 April, 2014**



JUN 15 2015



EOW Completion Report



<b>Company:</b>	Antero Resources	<b>Local Co-ordinate Reference:</b>	Well Arters Unit 2H
<b>Project:</b>	Doddridge County WV	<b>TVD Reference:</b>	Arters 1H 1050 GL + 25 KB @ 1075.0usft
<b>Site:</b>	Ruth/Walter/Caswell/Arters	<b>MD Reference:</b>	Arters 1H 1050 GL + 25 KB @ 1075.0usft
<b>Well:</b>	Arters Unit 2H	<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>	Doddridge County WV, McClellan District		
<b>Map System:</b>	Universal Transverse Mercator (US Survey Feet)	<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>	Ruth/Walter/Caswell/Arters, Center is Ruth Unit 1				
<b>Site Position:</b>		<b>Northing:</b>	14,251,337.29 usft	<b>Latitude:</b>	39° 14' 41.054 N
<b>From:</b>	Map	<b>Easting:</b>	1,762,689.77 usft	<b>Longitude:</b>	80° 34' 5.240 W
<b>Position Uncertainty:</b>	2.8 usft	<b>Slot Radius:</b>	13-3/16"	<b>Grid Convergence:</b>	0.27 °

<b>Well</b>	Arters Unit 2H					
<b>Well Position</b>	<b>+N/-S</b>	0.0 usft	<b>Northing:</b>	14,251,310.15 usft	<b>Latitude:</b>	39° 14' 40.788 N
	<b>+E/-W</b>	0.0 usft	<b>Easting:</b>	1,762,647.79 usft	<b>Longitude:</b>	80° 34' 5.775 W
<b>Position Uncertainty</b>	2.8 usft		<b>Wellhead Elevation:</b>	1,075.0 usft	<b>Ground Level:</b>	1,050.0 usft

<b>Wellbore</b>	Original Wellpath				
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	11/27/2013	-8.59	66.80	52,314

<b>Design</b>	As Drilled				
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**Audit Notes:**

<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.0
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Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	342.92

Survey Program	From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
	112.0	6,809.0	Survey #8 Final Gyro (Original Wellpath)	SDI Standard Keeper	Scientific Drilling Intl. Standard Wireline Keeper
	6,837.0	18,301.0	Survey #7 MWD (Original Wellpath)	SDI MWD	Scientific Drilling Intl. MWD - Standard ver 1.0.1

Survey	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
	112.0	0.17	220.19	112.0	-0.1	-0.1	-0.1	0.15
	212.0	0.04	157.60	212.0	-0.3	-0.2	-0.2	0.16
	312.0	0.17	137.47	312.0	-0.4	-0.1	-0.4	0.13
	412.0	0.15	115.49	412.0	-0.6	0.1	-0.6	0.06
	512.0	0.23	143.16	512.0	-0.8	0.4	-0.9	0.12
	612.0	0.15	141.17	612.0	-1.1	0.6	-1.2	0.08
	712.0	0.09	78.91	712.0	-1.1	0.7	-1.3	0.13
	812.0	0.15	137.94	812.0	-1.2	0.9	-1.4	0.13
	912.0	0.20	108.21	912.0	-1.4	1.2	-1.7	0.10
	1,012.0	0.44	233.80	1,012.0	-1.7	1.0	-1.9	0.58

JUN 15 2015



WV GEOLOGICAL SURVEY  
MORGANTOWN, WV

EOW Completion Report



**Company:** Antero Resources  
**Project:** Doddridge County WV  
**Site:** Ruth/Walter/Caswell/Arters  
**Well:** Arters Unit 2H  
**Wellbore:** Original Wellpath  
**Design:** As Drilled

**Local Co-ordinate Reference:** Well Arters Unit 2H  
**TVD Reference:** Arters 1H 1050 GL + 25 KB @ 1075.0usft  
**MD Reference:** Arters 1H 1050 GL + 25 KB @ 1075.0usft  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** Oklahoma District

**Survey**

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
1,112.0	4.08	253.11	1,111.9	-2.9	-2.7	-2.0	3.67
1,212.0	5.38	270.27	1,211.6	-3.9	-10.8	-0.6	1.91
1,312.0	5.86	283.15	1,311.1	-2.8	-20.5	3.4	1.35
1,412.0	5.89	300.40	1,410.6	1.0	-29.8	9.7	1.76
1,512.0	6.16	303.98	1,510.0	6.6	-38.7	17.7	0.46
1,612.0	6.26	304.26	1,609.4	12.7	-47.7	26.1	0.10
1,712.0	5.35	306.44	1,708.9	18.5	-55.9	34.1	0.94
1,812.0	2.28	315.45	1,808.7	22.7	-61.1	39.6	3.12
1,912.0	1.73	316.73	1,908.6	25.2	-63.5	42.8	0.55
2,012.0	1.32	323.26	2,008.6	27.2	-65.2	45.2	0.44
2,112.0	0.73	321.52	2,108.6	28.7	-66.3	46.9	0.59
2,212.0	0.42	335.10	2,208.6	29.5	-66.9	47.8	0.34
2,312.0	0.32	316.36	2,308.6	30.0	-67.2	48.4	0.16
2,412.0	0.12	303.55	2,408.6	30.3	-67.5	48.8	0.20
2,512.0	0.15	185.98	2,508.6	30.2	-67.6	48.7	0.23
2,612.0	0.10	132.10	2,608.6	30.0	-67.5	48.5	0.12
2,712.0	0.14	120.96	2,708.6	29.9	-67.4	48.4	0.05
2,812.0	0.18	139.62	2,808.6	29.7	-67.2	48.1	0.07
2,912.0	0.08	139.44	2,908.6	29.5	-67.0	47.9	0.10
3,012.0	0.18	155.41	3,008.6	29.3	-66.9	47.7	0.11
3,112.0	0.20	136.48	3,108.6	29.1	-66.7	47.4	0.07
3,212.0	0.22	125.75	3,208.6	28.8	-66.5	47.1	0.04
3,312.0	0.28	144.94	3,308.6	28.5	-66.2	46.7	0.10
3,412.0	0.31	136.25	3,408.6	28.1	-65.8	46.2	0.05
3,512.0	0.29	127.60	3,508.6	27.8	-65.4	45.8	0.05
3,612.0	0.27	131.44	3,608.6	27.5	-65.1	45.4	0.03
3,712.0	0.26	111.45	3,708.6	27.2	-64.7	45.0	0.09
3,812.0	0.29	122.53	3,808.6	27.0	-64.3	44.7	0.06
3,912.0	0.35	119.43	3,908.6	26.7	-63.8	44.3	0.06
4,012.0	0.29	124.97	4,008.6	26.4	-63.3	43.9	0.07
4,112.0	0.33	123.16	4,108.5	26.1	-62.9	43.4	0.04
4,212.0	0.41	108.58	4,208.5	25.9	-62.3	43.0	0.12
4,312.0	0.49	78.36	4,308.5	25.8	-61.5	42.8	0.25
4,412.0	0.66	84.60	4,408.5	26.0	-60.5	42.6	0.18
4,512.0	0.65	87.61	4,508.5	26.1	-59.4	42.3	0.04
4,612.0	0.66	99.88	4,608.5	26.0	-58.2	41.9	0.14
4,712.0	1.99	52.28	4,708.5	26.9	-56.3	42.3	1.62
4,812.0	5.49	53.51	4,808.3	30.8	-51.1	44.5	3.50
4,912.0	8.24	54.74	4,907.5	37.8	-41.4	48.3	2.75
5,012.0	10.95	52.58	5,006.1	47.7	-28.0	53.9	2.73
5,112.0	13.93	45.92	5,103.8	61.9	-11.8	62.6	3.30
5,212.0	15.13	44.79	5,200.6	79.5	6.0	74.2	1.23
5,312.0	17.74	46.78	5,296.5	99.2	26.3	87.1	2.67
5,412.0	20.96	44.41	5,390.8	122.4	50.0	102.4	3.31

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GEOLOGICAL SURVEY  
MORGANTOWN, WV

EOW Completion Report



**Company:** Antero Resources  
**Project:** Doddridge County WV  
**Site:** Ruth/Walter/Caswell/Arters  
**Well:** Arters Unit 2H  
**Wellbore:** Original Wellpath  
**Design:** As Drilled

**Local Co-ordinate Reference:** Well Arters Unit 2H  
**TVD Reference:** Arters 1H 1050 GL + 25 KB @ 1075.0usft  
**MD Reference:** Arters 1H 1050 GL + 25 KB @ 1075.0usft  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** Oklahoma District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
5,512.0	21.39	31.97	5,484.1	150.7	72.2	122.9	4.51
5,612.0	23.15	29.08	5,576.7	183.4	91.4	148.4	2.07
5,712.0	25.29	33.86	5,667.9	218.3	112.8	175.5	2.90
5,812.0	24.41	39.69	5,758.6	251.9	137.9	200.3	2.60
5,912.0	21.91	44.57	5,850.6	281.1	164.2	220.5	3.15
6,012.0	23.24	49.90	5,942.9	307.1	192.4	237.1	2.44
6,112.0	25.48	53.20	6,034.0	332.7	224.7	252.0	2.62
6,212.0	25.45	53.08	6,124.3	358.5	259.1	266.6	0.06
6,312.0	26.72	54.42	6,214.1	384.5	294.6	281.0	1.40
6,412.0	26.92	49.52	6,303.4	412.3	330.1	297.1	2.22
6,512.0	27.14	45.94	6,392.4	442.8	363.7	316.5	1.64
6,612.0	27.35	45.21	6,481.3	474.9	396.4	337.5	0.39
6,712.0	27.13	44.32	6,570.3	507.4	428.6	359.1	0.46
6,809.0	26.27	43.56	6,656.9	538.8	458.9	380.2	0.95
6,816.0	26.19	43.57	6,663.2	541.0	461.0	381.7	1.11
<b>Middlesex</b>							
6,837.0	25.96	43.62	6,682.1	547.7	467.4	386.3	1.11
6,868.0	26.16	42.36	6,709.9	557.6	476.7	393.1	1.90
6,900.0	27.56	37.71	6,738.5	568.7	486.0	400.9	7.89
6,931.0	30.52	31.34	6,765.6	581.1	494.4	410.3	13.80
6,962.0	33.30	27.21	6,791.9	595.4	502.4	421.6	11.40
6,967.0	33.60	26.97	6,796.0	597.9	503.7	423.6	6.46
<b>Burkett</b>							
6,992.0	35.08	25.85	6,816.7	610.5	510.0	433.8	6.46
<b>Tully</b>							
6,994.0	35.20	25.76	6,818.3	611.5	510.5	434.6	6.46
7,025.0	37.66	23.45	6,843.3	628.3	518.1	448.4	9.08
7,056.0	38.19	22.83	6,867.7	645.8	525.6	462.9	2.11
7,087.0	37.84	22.18	6,892.1	663.4	532.9	477.7	1.72
7,088.0	37.86	22.11	6,892.9	664.0	533.1	478.1	4.89
<b>Hamilton</b>							
7,119.0	38.41	19.82	6,917.3	681.9	540.0	493.2	4.89
7,140.0	39.38	17.68	6,933.7	694.4	544.2	503.9	7.88
<b>Marcellus</b>							
7,150.0	39.85	16.69	6,941.4	700.5	546.1	509.2	7.88
7,182.0	41.50	13.82	6,965.6	720.6	551.6	526.8	7.79
7,213.0	43.46	11.56	6,988.5	741.0	556.2	545.0	8.01
7,244.0	46.26	9.78	7,010.5	762.5	560.2	564.3	9.90
7,276.0	49.61	7.52	7,031.9	786.0	563.8	585.7	11.71
7,307.0	52.99	5.22	7,051.3	810.0	566.4	607.9	12.34
7,339.0	55.50	3.22	7,070.0	835.9	568.3	632.1	9.34
7,370.0	57.18	1.53	7,087.2	861.7	569.4	656.4	7.07
7,401.0	60.52	358.95	7,103.2	888.2	569.5	681.8	12.91
7,433.0	64.69	356.80	7,117.9	916.6	568.4	709.2	14.33
7,464.0	68.39	354.61	7,130.3	944.9	566.3	736.9	13.58



<b>Company:</b>	Antero Resources	<b>Local Co-ordinate Reference:</b>	Well Arters Unit 2H
<b>Project:</b>	Doddridge County WV	<b>TVD Reference:</b>	Arters 1H 1050 GL + 25 KB @ 1075.0usft
<b>Site:</b>	Ruth/Walter/Caswell/Arters	<b>MD Reference:</b>	Arters 1H 1050 GL + 25 KB @ 1075.0usft
<b>Well:</b>	Arters Unit 2H	<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)
7,495.0	72.91	351.55	7,140.5	974.0	562.8	765.7	17.30
7,527.0	76.83	349.01	7,148.9	1,004.4	557.6	796.3	14.45
7,558.0	78.32	347.21	7,155.6	1,034.0	551.3	826.5	7.43
7,589.0	80.75	345.20	7,161.2	1,063.6	544.0	856.9	10.10
7,606.0	82.64	344.73	7,163.6	1,079.9	539.7	873.7	11.45
7,696.0	90.57	344.87	7,169.0	1,166.5	516.1	963.4	8.81
7,790.0	89.73	344.54	7,168.7	1,257.2	491.3	1,057.4	0.96
7,884.0	90.40	345.16	7,168.6	1,347.9	466.8	1,151.3	0.97
7,978.0	88.29	342.33	7,169.7	1,438.1	440.5	1,245.3	3.76
8,072.0	87.05	341.83	7,173.5	1,527.5	411.6	1,339.2	1.42
8,166.0	88.39	341.91	7,177.3	1,616.7	382.4	1,433.1	1.43
8,260.0	87.62	342.04	7,180.5	1,706.1	353.3	1,527.1	0.83
8,354.0	89.63	341.39	7,182.8	1,795.3	323.8	1,621.0	2.25
8,449.0	90.00	340.67	7,183.1	1,885.1	292.9	1,716.0	0.85
8,542.0	92.75	341.03	7,180.9	1,972.9	262.4	1,808.9	2.98
8,636.0	89.87	339.05	7,178.7	2,061.3	230.3	1,902.7	3.72
8,731.0	90.54	341.84	7,178.4	2,150.8	198.6	1,997.6	3.02
8,825.0	90.54	342.37	7,177.5	2,240.2	169.7	2,091.6	0.56
8,919.0	90.10	341.89	7,177.0	2,329.7	140.8	2,185.6	0.69
9,013.0	91.27	344.52	7,175.8	2,419.7	113.7	2,279.6	3.06
9,107.0	90.47	342.88	7,174.4	2,509.9	87.3	2,373.5	1.94
9,201.0	91.01	344.43	7,173.2	2,600.1	60.8	2,467.5	1.75
9,296.0	90.30	342.71	7,172.1	2,691.2	34.0	2,562.5	1.96
9,390.0	90.70	343.44	7,171.3	2,781.1	6.6	2,656.5	0.89
9,484.0	89.83	342.05	7,170.9	2,870.9	-21.3	2,750.5	1.74
9,578.0	90.57	343.64	7,170.5	2,960.7	-49.0	2,844.5	1.87
9,672.0	90.30	342.50	7,169.8	3,050.6	-76.4	2,938.5	1.25
9,766.0	90.07	342.63	7,169.5	3,140.3	-104.5	3,032.5	0.28
9,861.0	89.25	341.47	7,170.1	3,230.6	-133.8	3,127.5	1.50
9,955.0	91.14	342.27	7,169.8	3,320.0	-163.1	3,221.4	2.18
10,049.0	90.47	341.11	7,168.4	3,409.2	-192.6	3,315.4	1.42
10,143.0	91.24	343.40	7,167.0	3,498.7	-221.2	3,409.4	2.57
10,237.0	89.36	341.26	7,166.5	3,588.3	-249.8	3,503.4	3.03
10,331.0	89.73	342.43	7,167.3	3,677.6	-279.0	3,597.3	1.31
10,425.0	90.23	343.98	7,167.3	3,767.6	-306.2	3,691.3	1.73
10,519.0	90.20	343.10	7,167.0	3,857.7	-332.8	3,785.3	0.94
10,613.0	89.80	346.14	7,167.0	3,948.3	-357.8	3,879.3	3.26
10,707.0	89.73	348.38	7,167.3	4,040.0	-378.5	3,973.0	2.38
10,802.0	90.10	349.39	7,167.5	4,133.2	-396.8	4,067.5	1.13
10,896.0	88.86	346.62	7,168.3	4,225.2	-416.3	4,161.1	3.23
10,990.0	89.06	344.49	7,170.0	4,316.2	-439.8	4,255.0	2.28
11,084.0	88.69	341.77	7,171.9	4,406.1	-467.1	4,349.0	2.92
11,178.0	90.00	342.59	7,173.0	4,495.6	-495.8	4,442.9	1.64
11,273.0	90.13	341.39	7,172.9	4,585.9	-525.2	4,537.9	1.27
11,367.0	88.82	339.57	7,173.7	4,674.5	-556.6	4,631.8	2.39

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EOW Completion Report



<b>Company:</b>	Antero Resources	<b>Local Co-ordinate Reference:</b>	Well Arters Unit 2H
<b>Project:</b>	Doddridge County WV	<b>TVD Reference:</b>	Arters 1H 1050 GL + 25 KB @ 1075.0usft
<b>Site:</b>	Ruth/Walter/Caswell/Arters	<b>MD Reference:</b>	Arters 1H 1050 GL + 25 KB @ 1075.0usft
<b>Well:</b>	Arters Unit 2H	<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)
11,461.0	88.36	338.80	7,176.0	4,762.4	-590.0	4,725.6	0.95
11,555.0	89.90	341.42	7,177.5	4,850.7	-622.0	4,819.5	3.23
11,646.0	90.10	341.17	7,177.5	4,936.9	-651.1	4,910.4	0.35
11,738.0	89.77	341.22	7,177.6	5,024.0	-680.8	5,002.4	0.36
11,830.0	88.59	345.64	7,178.9	5,112.2	-707.0	5,094.4	4.97
11,922.0	89.83	344.76	7,180.2	5,201.1	-730.5	5,186.3	1.65
12,015.0	90.10	345.05	7,180.2	5,290.9	-754.7	5,279.2	0.43
12,108.0	89.87	341.46	7,180.2	5,379.9	-781.5	5,372.2	3.87
12,200.0	89.87	344.62	7,180.4	5,467.9	-808.4	5,464.2	3.43
12,293.0	90.03	344.99	7,180.5	5,557.7	-832.7	5,557.1	0.43
12,384.0	88.72	342.71	7,181.5	5,645.1	-858.1	5,648.1	2.89
12,476.0	90.00	343.44	7,182.5	5,733.1	-884.8	5,740.1	1.60
12,569.0	89.46	342.00	7,183.0	5,821.9	-912.5	5,833.1	1.65
12,755.0	90.13	343.42	7,183.6	5,999.5	-967.7	6,019.1	0.84
12,850.0	89.63	342.80	7,183.8	6,090.4	-995.3	6,114.1	0.84
12,944.0	88.83	341.29	7,185.1	6,179.8	-1,024.3	6,208.1	1.82
13,038.0	90.37	342.76	7,185.8	6,269.2	-1,053.3	6,302.0	2.26
13,132.0	89.06	341.31	7,186.2	6,358.6	-1,082.3	6,396.0	2.08
13,226.0	90.66	342.44	7,186.5	6,447.9	-1,111.5	6,490.0	2.08
13,320.0	88.96	341.31	7,186.8	6,537.2	-1,140.8	6,584.0	2.17
13,415.0	89.87	343.76	7,187.7	6,627.9	-1,169.3	6,679.0	2.75
13,509.0	91.68	345.31	7,186.5	6,718.4	-1,194.4	6,772.9	2.53
13,603.0	91.10	343.94	7,184.2	6,809.0	-1,219.3	6,866.8	1.58
13,697.0	90.57	345.77	7,182.8	6,899.8	-1,243.8	6,960.8	2.03
13,791.0	88.52	343.65	7,183.6	6,990.4	-1,268.6	7,054.7	3.14
13,885.0	89.26	346.70	7,185.4	7,081.3	-1,292.7	7,148.6	3.34
13,979.0	88.32	346.19	7,187.4	7,172.6	-1,314.7	7,242.4	1.14
14,074.0	88.93	346.90	7,189.7	7,265.0	-1,336.8	7,337.2	0.99
14,168.0	88.78	344.96	7,191.5	7,356.1	-1,359.6	7,431.0	2.07
14,262.0	88.56	343.45	7,193.7	7,446.6	-1,385.2	7,525.0	1.62
14,356.0	91.21	345.06	7,193.9	7,537.0	-1,410.7	7,619.0	3.30
14,450.0	90.54	344.96	7,192.5	7,627.8	-1,435.0	7,712.9	0.72
14,544.0	89.46	341.51	7,192.5	7,717.8	-1,462.1	7,806.9	3.85
14,639.0	89.08	340.94	7,193.7	7,807.8	-1,492.7	7,901.8	0.72
14,733.0	89.13	341.29	7,195.1	7,896.7	-1,523.1	7,995.8	0.38
14,827.0	88.12	340.44	7,197.4	7,985.5	-1,553.9	8,089.7	1.40
14,921.0	90.57	343.02	7,198.5	8,074.7	-1,583.4	8,183.6	3.78
15,015.0	90.91	342.65	7,197.3	8,164.5	-1,611.1	8,277.6	0.53
15,110.0	90.50	342.43	7,196.1	8,255.1	-1,639.6	8,372.6	0.49
15,204.0	90.00	341.20	7,195.7	8,344.4	-1,669.0	8,466.6	1.41
15,298.0	92.12	342.44	7,193.9	8,433.7	-1,698.3	8,560.5	2.61
15,392.0	90.20	342.96	7,192.0	8,523.4	-1,726.2	8,654.5	2.12
15,486.0	90.34	343.63	7,191.6	8,613.5	-1,753.3	8,748.5	0.73
15,580.0	89.09	343.59	7,192.1	8,703.6	-1,779.8	8,842.5	1.33

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EOW Completion Report



<b>Company:</b>	Antero Resources	<b>Local Co-ordinate Reference:</b>	Well Arters Unit 2H
<b>Project:</b>	Doddridge County WV	<b>TVD Reference:</b>	Arters 1H 1050 GL + 25 KB @ 1075.0usft
<b>Site:</b>	Ruth/Walter/Caswell/Arters	<b>MD Reference:</b>	Arters 1H 1050 GL + 25 KB @ 1075.0usft
<b>Well:</b>	Arters Unit 2H	<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)
15,674.0	89.29	344.05	7,193.4	8,793.9	-1,806.0	8,936.5	0.53
15,769.0	89.03	343.98	7,194.8	8,885.2	-1,832.1	9,031.5	0.28
15,863.0	88.32	343.79	7,197.0	8,975.5	-1,858.2	9,125.4	0.78
15,957.0	88.82	342.60	7,199.3	9,065.5	-1,885.4	9,219.4	1.37
16,051.0	89.46	344.44	7,200.7	9,155.6	-1,912.0	9,313.4	2.07
16,146.0	89.93	346.11	7,201.2	9,247.5	-1,936.2	9,408.3	1.83
16,240.0	89.90	346.41	7,201.4	9,338.8	-1,958.5	9,502.1	0.32
16,334.0	89.63	345.49	7,201.8	9,430.0	-1,981.3	9,596.0	1.02
16,428.0	88.96	343.32	7,202.9	9,520.5	-2,006.6	9,689.9	2.42
16,522.0	90.23	343.02	7,203.6	9,610.5	-2,033.8	9,783.9	1.39
16,617.0	89.33	341.31	7,203.9	9,700.9	-2,062.9	9,878.9	2.03
16,710.0	88.99	341.52	7,205.3	9,789.0	-2,092.5	9,971.9	0.43
16,805.0	90.20	343.73	7,206.0	9,879.7	-2,120.9	10,066.9	2.65
16,897.0	88.36	340.86	7,207.1	9,967.3	-2,148.9	10,158.8	3.71
16,992.0	87.99	341.28	7,210.2	10,057.1	-2,179.7	10,253.7	0.59
17,086.0	89.90	342.20	7,211.9	10,146.4	-2,209.1	10,347.7	2.26
17,180.0	90.34	343.16	7,211.7	10,236.1	-2,237.1	10,441.7	1.12
17,275.0	90.01	341.81	7,211.4	10,326.7	-2,265.7	10,536.7	1.46
17,370.0	88.99	341.53	7,212.2	10,416.9	-2,295.6	10,631.7	1.11
17,464.0	88.66	340.71	7,214.2	10,505.8	-2,326.0	10,725.6	0.94
17,559.0	89.13	340.03	7,216.0	10,595.3	-2,357.9	10,820.5	0.87
17,653.0	90.50	341.62	7,216.3	10,684.0	-2,388.8	10,914.4	2.23
17,748.0	89.50	339.41	7,216.3	10,773.6	-2,420.5	11,009.3	2.55
17,843.0	88.76	337.91	7,217.7	10,862.1	-2,455.0	11,104.1	1.76
17,938.0	89.26	339.33	7,219.4	10,950.5	-2,489.7	11,198.8	1.58
18,033.0	90.30	339.70	7,219.7	11,039.5	-2,522.9	11,293.6	1.16
18,127.0	89.83	341.26	7,219.6	11,128.1	-2,554.3	11,387.5	1.73
18,221.0	89.26	339.90	7,220.4	11,216.7	-2,585.6	11,481.4	1.57
18,244.0	89.09	339.06	7,220.7	11,238.3	-2,593.6	11,504.4	3.73
18,301.0	89.09	339.06	7,221.6	11,291.5	-2,614.0	11,561.2	0.00

PTB

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
6,816.0	6,663.2	541.0	461.0	Middlesex
6,967.0	6,796.0	597.9	503.7	Burkett
6,992.0	6,816.7	610.5	510.0	Tully
7,088.0	6,892.9	664.0	533.1	Hamilton
7,140.0	6,933.7	694.4	544.2	Marcellus
18,301.0	7,221.6	11,291.5	-2,614.0	PTB

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