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JUN 26 2015

WV GEOLOGICAL SURVEY
MORGANTOWN, WV



Antero Resources
Courtney Unit 2H
Harrison County West Virginia
Northing: 14231182.52
Easting: 1778692.64
As Drilled

WELL DETAILS: Courtney Unit 2H
Ground Level: 1358.0
Northing: 14231182.52
Easting: 1778692.64
Latitude: 39° 11' 20.971" N
Longitude: 80° 30' 43.142" W
Slot

Genie Lightfoot
8-13, November 05 2013
Scientific Drilling
421 South Eagle Lane
Oklahoma City, OK

REFERENCE INFORMATION

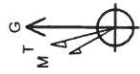
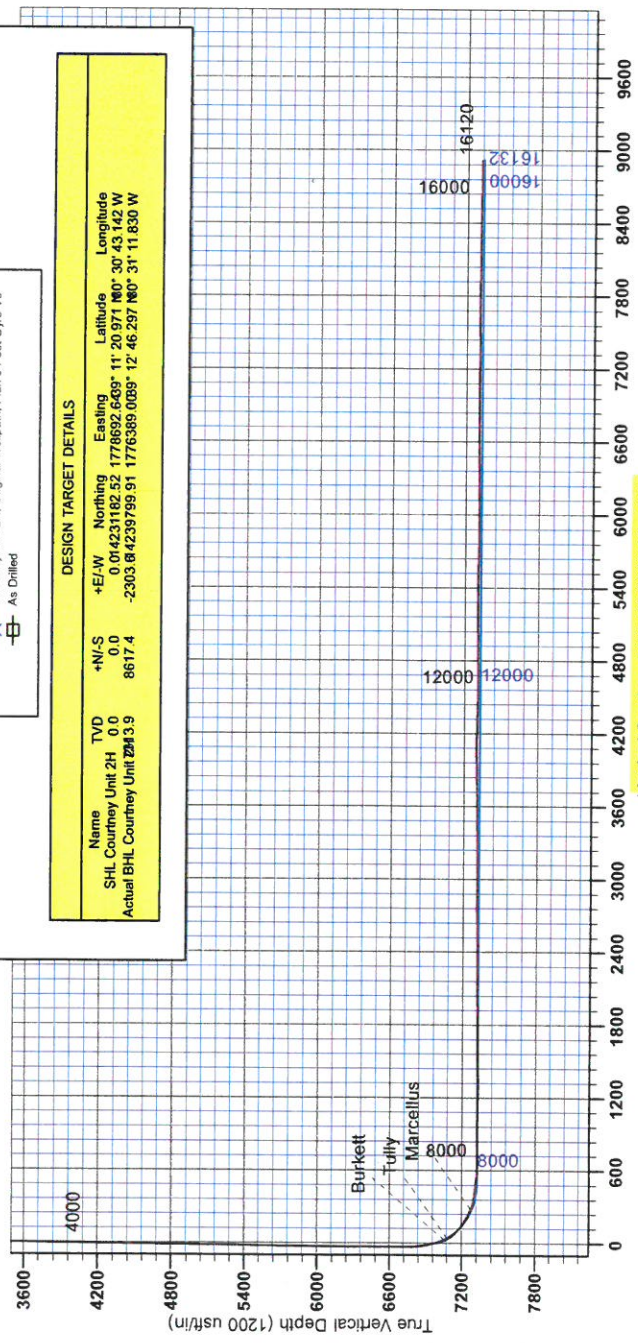
Coordinates (N/E) Reference: Well Courtney Unit 2H, Grid North
Vertical (V/D) Reference: Courtney 2H, 1358 GL, ± 22 MI @ 1380.0 usft
Measured Depth Reference: Courtney 2H, 1358 GL, ± 22 MI @ 1380.0 usft
Calculation Method: Minimum Curvature

LEGEND

- Everett Unit 2H, Sidetrack 1, Sidetrack 1 V0
- Everett Unit 2H, Original Wellpath, Original Wellpath V0
- Thaddeus Unit 1H, Original Wellpath, Original Wellpath V0
- Courtney Unit 1H, Original Wellpath, As Drilled V0
- Thaddeus Unit 2H, Original Wellpath, Original Wellpath V0
- Courtney Unit 2H, Original Wellpath, Plan 5 Post Gyro V0
- As Drilled

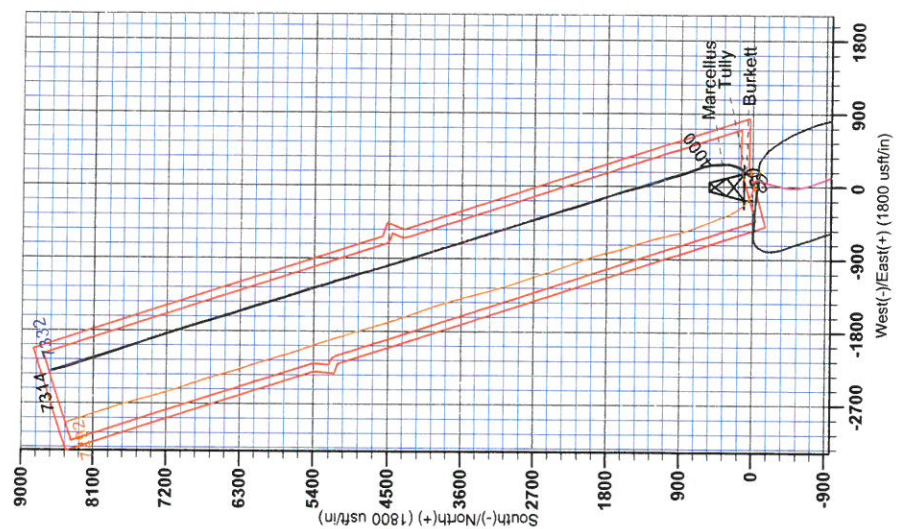
DESIGN TARGET DETAILS

Name	TVD	+N/S	+E/W	Northing	Easting	Latitude	Longitude
SHL Courtney Unit 2H	0.0	0.0	0.0	14231182.52	1778692.64	39° 11' 20.971" N	80° 30' 43.142" W
Actual BHL Courtney Unit 2H	233.9	8617.4	-2303.8	4239799.91	1776369.068	31° 22' 46.237" N	111° 11' 46.830" W



To convert Magnetic North to Grid, Subtract 6.82°
To convert True North to Grid, Subtract 0.31°

Azimuths to Grid North
True North: -0.31°
Magnetic North: -6.92°
Magnetic Field Strength: 52207
Dip Angle: 66.77°
Date: 9/27/2013
Model: IGRF2010





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MORGANTOWN, WV

Antero Resources

**Harrison County West Virginia
Myer/Thaddeus/Everett/Courtney Pad/Slussar
Courtney Unit 2H
Original Wellpath**

Design: As Drilled

EOW Completion Report

05 November, 2013



Scientific Drilling

JUN 26 2015



WV GEOLOGICAL SURVEY

EOW Completion Report



Company:	Antero Resources	Local Co-ordinate Reference:	Well Courtney Unit 2H
Project:	Harrison County West Virginia	TVD Reference:	Courtney 2H 1358 GL + 22 KB @ 1380.0usft
Site:	Myer/Thaddeus/Everett/Courtney Pad/Slussar	MD Reference:	Courtney 2H 1358 GL + 22 KB @ 1380.0usft
Well:	Courtney Unit 2H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Oklahoma District

Project	Harrison County West Virginia, Harrison County, USA		
Map System:	Universal Transverse Mercator (US Survey Fee	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Zone 17N (84 W to 78 W)		

Site	Myer/Thaddeus/Everett/Courtney Pad/Slussar, SHL of Thaddeus Unit 2H				
Site Position:		Northing:	14,231,176.62 usft	Latitude:	39° 11' 20.911 N
From:	Map	Easting:	1,778,722.04 usft	Longitude:	80° 30' 42.769 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"	Grid Convergence:	0.31 °

Well	Courtney Unit 2H, Marcellus					
Well Position	+N/-S	0.0 usft	Northing:	14,231,182.52 usft	Latitude:	39° 11' 20.971 N
	+E/-W	0.0 usft	Easting:	1,778,692.64 usft	Longitude:	80° 30' 43.142 W
Position Uncertainty		2.0 usft	Wellhead Elevation:	1,380.0 usft	Ground Level:	1,358.0 usft

Wellbore	Original Wellpath
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	9/27/2013	-8.61	66.77	52,297

Design	As Drilled
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Audit Notes:	
Version:	1.0
Phase:	ACTUAL
Tie On Depth:	0.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	342.39

Survey Program	Date	From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
	11/5/2013	100.0	6,749.0	Survey #5 Def Gyro to KOP (Original Well	SDI Standard Keeper	Scientific Drilling Intl. Standard Wireline Keeper
		6,816.0	16,120.0	Survey #6 MWD (Original Wellpath)	SDI MWD	Scientific Drilling Intl. MWD - Standard ver 1.0.1

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
100.0	0.40	69.15	100.0	0.1	0.3	0.0	0.40
200.0	0.39	96.35	200.0	0.2	1.0	-0.1	0.19
300.0	2.00	65.02	300.0	0.9	2.9	0.0	1.68
400.0	5.40	63.45	399.7	3.8	8.7	0.9	3.40
500.0	6.34	60.31	499.2	8.6	17.7	2.8	0.99
600.0	6.23	63.49	598.6	13.7	27.4	4.8	0.37
700.0	6.08	65.59	698.0	18.4	37.0	6.3	0.27
800.0	4.24	67.19	797.6	22.0	45.3	7.3	1.85
900.0	2.96	69.56	897.4	24.3	51.1	7.7	1.29
1,000.0	2.48	72.24	997.3	25.9	55.6	7.8	0.50



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EOW Completion Report



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Project:	Harrison County West Virginia	TVD Reference:	Courtney 2H 1358 GL + 22 KB @ 1380.0usft
Site:	Myer/Thaddeus/Everett/Courtney Pad/Slussar	MD Reference:	Courtney 2H 1358 GL + 22 KB @ 1380.0usft
Well:	Courtney Unit 2H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Oklahoma District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
1,100.0	1.77	72.37	1,097.3	27.0	59.1	7.9	0.71
1,200.0	1.71	74.21	1,197.2	27.9	62.0	7.8	0.08
1,300.0	1.34	74.01	1,297.2	28.6	64.6	7.7	0.37
1,400.0	1.32	73.91	1,397.1	29.2	66.8	7.7	0.02
1,500.0	1.07	79.47	1,497.1	29.7	68.8	7.5	0.28
1,600.0	0.82	78.47	1,597.1	30.0	70.5	7.3	0.25
1,700.0	0.74	90.19	1,697.1	30.2	71.8	7.1	0.18
1,800.0	0.61	81.95	1,797.1	30.3	73.0	6.8	0.16
1,900.0	0.38	95.43	1,897.1	30.3	73.8	6.5	0.26
2,000.0	0.35	69.44	1,997.1	30.4	74.4	6.4	0.17
2,100.0	0.35	89.10	2,097.1	30.5	75.0	6.4	0.12
2,200.0	0.53	98.91	2,197.1	30.4	75.8	6.1	0.19
2,300.0	0.46	72.90	2,297.1	30.5	76.6	5.9	0.23
2,400.0	0.48	93.98	2,397.1	30.6	77.4	5.7	0.17
2,500.0	0.50	87.99	2,497.1	30.5	78.3	5.4	0.05
2,600.0	0.59	93.87	2,597.1	30.5	79.2	5.1	0.11
2,700.0	0.60	99.91	2,697.1	30.4	80.3	4.7	0.06
2,800.0	0.73	110.90	2,797.1	30.1	81.4	4.1	0.18
2,900.0	0.71	109.58	2,897.1	29.7	82.6	3.3	0.03
3,000.0	0.73	113.28	2,997.0	29.2	83.7	2.5	0.05
3,100.0	0.67	125.70	3,097.0	28.6	84.8	1.6	0.16
3,200.0	0.88	126.68	3,197.0	27.8	85.9	0.5	0.21
3,300.0	0.61	119.21	3,297.0	27.1	87.0	-0.5	0.29
3,400.0	0.61	109.91	3,397.0	26.6	87.9	-1.2	0.10
3,500.0	0.69	109.46	3,497.0	26.3	89.0	-1.9	0.08
3,600.0	0.70	108.96	3,597.0	25.9	90.1	-2.6	0.01
3,700.0	0.63	118.81	3,697.0	25.4	91.2	-3.4	0.13
3,800.0	0.75	124.51	3,797.0	24.8	92.2	-4.3	0.14
3,900.0	0.71	135.00	3,897.0	24.0	93.2	-5.4	0.14
4,000.0	0.79	144.44	3,997.0	23.0	94.0	-6.6	0.15
4,100.0	0.73	152.70	4,097.0	21.8	94.7	-7.9	0.12
4,200.0	0.58	164.36	4,197.0	20.8	95.2	-9.0	0.20
4,300.0	0.61	172.60	4,296.9	19.8	95.4	-10.0	0.09
4,400.0	0.57	182.25	4,396.9	18.7	95.4	-11.0	0.11
4,500.0	0.57	189.06	4,496.9	17.7	95.3	-11.9	0.07
4,600.0	0.61	181.61	4,596.9	16.7	95.2	-12.9	0.09
4,700.0	0.56	164.23	4,696.9	15.7	95.3	-13.9	0.18
4,800.0	0.50	161.52	4,796.9	14.8	95.6	-14.8	0.07
4,900.0	0.64	161.38	4,896.9	13.9	95.9	-15.8	0.14
5,000.0	0.65	156.48	4,996.9	12.8	96.3	-16.9	0.06
5,100.0	0.63	152.74	5,096.9	11.8	96.8	-18.0	0.05
5,200.0	0.58	156.41	5,196.9	10.9	97.3	-19.1	0.06
5,300.0	0.58	161.28	5,296.9	9.9	97.6	-20.1	0.05
5,400.0	0.81	150.77	5,396.9	8.8	98.1	-21.3	0.26

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WV GEOLOGICAL SURVEY
MORGANTOWN, WV

EOW Completion Report



Company: Antero Resources
Project: Harrison County West Virginia
Site: Myer/Thaddeus/Everett/Courtney Pad/Slussar
Well: Courtney Unit 2H
Wellbore: Original Wellpath
Design: As Drilled

Local Co-ordinate Reference: Well Courtney Unit 2H
TVD Reference: Courtney 2H 1358 GL + 22 KB @ 1380.0usft
MD Reference: Courtney 2H 1358 GL + 22 KB @ 1380.0usft
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)
5,500.0	1.09	148.14	5,496.9	7.4	99.0	-22.9	0.28
5,600.0	1.12	148.91	5,596.9	5.8	100.0	-24.8	0.03
5,700.0	1.06	155.65	5,696.8	4.1	100.9	-26.6	0.14
5,800.0	0.87	161.96	5,796.8	2.5	101.5	-28.3	0.22
5,900.0	0.66	166.32	5,896.8	1.2	101.9	-29.6	0.22
6,000.0	0.51	190.92	5,996.8	0.2	101.9	-30.6	0.29
6,100.0	0.39	163.73	6,096.8	-0.5	101.9	-31.3	0.24
6,200.0	0.74	104.52	6,196.8	-1.0	102.7	-32.0	0.64
6,300.0	1.46	78.23	6,296.8	-0.9	104.5	-32.5	0.86
6,400.0	2.57	63.13	6,396.7	0.4	107.8	-32.3	1.22
6,500.0	2.52	64.51	6,496.6	2.3	111.8	-31.6	0.08
6,600.0	2.42	64.42	6,596.5	4.2	115.6	-31.0	0.10
6,700.0	2.49	71.24	6,696.4	5.8	119.6	-30.7	0.30
6,749.0	2.53	72.72	6,745.4	6.5	121.6	-30.6	0.16
6,816.0	6.07	33.35	6,812.2	9.9	125.0	-28.4	6.59
6,848.0	10.38	23.16	6,843.9	13.9	127.1	-25.2	14.17
6,880.0	13.01	31.42	6,875.2	19.7	130.1	-20.6	9.72
6,912.0	15.21	41.44	6,906.2	25.9	134.7	-16.1	10.25
6,944.0	19.17	45.31	6,936.8	32.7	141.3	-11.6	12.87
6,976.0	23.57	46.80	6,966.6	40.8	149.7	-6.4	13.85
7,009.0	27.79	46.27	6,996.3	50.6	160.0	-0.2	12.81
7,041.0	32.28	42.98	7,024.0	62.0	171.3	7.3	14.94
7,073.0	36.71	41.26	7,050.4	75.5	183.4	16.5	14.17
7,088.0	38.87	40.65	7,062.2	82.4	189.4	21.3	14.64
Burkett							
7,105.0	41.33	40.03	7,075.3	90.8	196.5	27.1	14.64
7,123.0	43.57	37.92	7,088.5	100.2	204.1	33.8	14.72
Tully							
7,137.0	45.33	36.40	7,098.5	108.0	210.1	39.4	14.72
7,169.0	49.42	32.74	7,120.2	127.4	223.4	53.9	15.30
7,201.0	52.76	29.31	7,140.3	148.8	236.2	70.3	13.36
7,233.0	55.40	24.56	7,159.1	171.9	247.9	88.8	14.58
7,265.0	57.57	20.10	7,176.7	196.5	258.0	109.3	13.45
7,297.0	58.83	14.81	7,193.6	222.5	266.2	131.5	14.59
7,329.0	59.89	10.21	7,209.9	249.3	272.1	155.3	12.80
7,361.0	60.23	4.44	7,225.9	276.8	275.7	180.5	15.66
7,393.0	60.15	359.34	7,241.8	304.6	276.6	206.6	13.83
7,425.0	62.70	356.53	7,257.1	332.6	275.6	233.7	11.09
7,458.0	67.27	356.09	7,271.1	362.5	273.6	262.7	13.90
7,474.0	69.20	356.22	7,277.0	377.3	272.6	277.1	12.12
Marcellus							
7,490.0	71.14	356.35	7,282.4	392.3	271.7	291.8	12.12
7,522.0	74.13	356.61	7,292.0	422.8	269.8	321.4	9.38
7,554.0	77.47	356.88	7,299.8	453.8	268.0	351.4	10.47
7,586.0	81.87	355.91	7,305.6	485.2	266.1	382.0	14.07

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EOW Completion Report



Company:	Antero Resources	Local Co-ordinate Reference:	Well Courtney Unit 2H
Project:	Harrison County West Virginia	TVD Reference:	Courtney 2H 1358 GL + 22 KB @ 1380.0usft
Site:	Myer/Thaddeus/Everett/Courtney Pad/Slussar	MD Reference:	Courtney 2H 1358 GL + 22 KB @ 1380.0usft
Well:	Courtney Unit 2H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Oklahoma District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
7,618.0	84.59	353.63	7,309.4	516.8	263.2	413.0	11.06
7,650.0	84.54	349.55	7,312.4	548.3	258.5	444.4	12.69
7,683.0	83.45	345.28	7,315.8	580.4	251.4	477.1	13.29
7,715.0	82.02	341.69	7,319.9	610.8	242.3	508.8	11.99
7,733.0	82.39	340.27	7,322.3	627.6	236.5	526.7	8.08
7,773.0	85.91	340.44	7,326.4	665.1	223.1	566.4	8.81
7,869.0	88.02	341.85	7,331.5	755.8	192.2	662.3	2.64
7,964.0	91.01	341.23	7,332.3	845.9	162.1	757.2	3.21
8,061.0	91.36	340.09	7,330.3	937.4	130.0	854.2	1.23
8,157.0	90.31	341.76	7,328.9	1,028.1	98.6	950.1	2.05
8,253.0	89.43	342.38	7,329.1	1,119.5	69.1	1,046.1	1.12
8,349.0	87.58	340.97	7,331.6	1,210.6	38.9	1,142.1	2.42
8,446.0	89.25	344.49	7,334.3	1,303.1	10.1	1,239.0	4.02
8,542.0	91.45	345.36	7,333.7	1,395.8	-14.9	1,334.9	2.46
8,638.0	91.28	344.49	7,331.4	1,488.5	-39.8	1,430.8	0.92
8,733.0	91.54	344.13	7,329.1	1,579.9	-65.5	1,525.7	0.47
8,830.0	90.22	342.90	7,327.6	1,672.9	-93.0	1,622.7	1.86
8,926.0	89.87	340.88	7,327.5	1,764.2	-122.9	1,718.7	2.14
9,023.0	90.57	340.44	7,327.1	1,855.7	-155.0	1,815.6	0.85
9,119.0	91.36	342.55	7,325.5	1,946.7	-185.5	1,911.6	2.35
9,215.0	91.45	341.85	7,323.2	2,038.1	-214.8	2,007.6	0.73
9,312.0	89.60	343.69	7,322.3	2,130.7	-243.5	2,104.6	2.69
9,408.0	89.69	343.08	7,322.9	2,222.7	-271.0	2,200.5	0.64
9,504.0	90.40	342.73	7,322.8	2,314.5	-299.2	2,296.5	0.82
9,601.0	90.13	342.02	7,322.4	2,406.9	-328.6	2,393.5	0.78
9,697.0	90.66	341.15	7,321.7	2,498.0	-358.9	2,489.5	1.06
9,793.0	91.01	343.87	7,320.3	2,589.5	-387.7	2,585.5	2.86
9,890.0	91.28	343.34	7,318.4	2,682.6	-415.1	2,682.5	0.61
9,986.0	90.13	342.20	7,317.2	2,774.3	-443.5	2,778.4	1.69
10,082.0	89.52	343.08	7,317.5	2,865.9	-472.2	2,874.4	1.12
10,179.0	89.87	343.17	7,318.0	2,958.7	-500.3	2,971.4	0.37
10,275.0	90.20	342.13	7,317.9	3,050.3	-529.0	3,067.4	1.14
10,372.0	90.57	341.94	7,317.3	3,142.6	-558.9	3,164.4	0.43
10,468.0	91.10	341.59	7,315.9	3,233.8	-588.9	3,260.4	0.66
10,564.0	91.36	340.97	7,313.8	3,324.7	-619.7	3,356.4	0.70
10,661.0	90.40	343.78	7,312.3	3,417.1	-649.1	3,453.3	3.06
10,756.0	89.43	341.76	7,312.5	3,507.8	-677.2	3,548.3	2.36
10,853.0	91.28	343.61	7,311.9	3,600.4	-706.1	3,645.3	2.70
10,948.0	90.92	342.82	7,310.0	3,691.4	-733.5	3,740.3	0.91
11,045.0	91.71	342.64	7,307.8	3,784.0	-762.3	3,837.3	0.84
11,140.0	91.28	341.85	7,305.3	3,874.4	-791.3	3,932.2	0.95
11,236.0	91.28	342.64	7,303.2	3,965.8	-820.5	4,028.2	0.82
11,332.0	89.08	342.02	7,302.9	4,057.3	-849.7	4,124.2	2.38
11,423.0	87.76	339.74	7,305.4	4,143.2	-879.5	4,215.1	2.89

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EOW Completion Report



Company:	Antero Resources	Local Co-ordinate Reference:	Well Courtney Unit 2H
Project:	Harrison County West Virginia	TVD Reference:	Courtney 2H 1358 GL + 22 KB @ 1380.0usft
Site:	Myer/Thaddeus/Everett/Courtney Pad/Slussar	MD Reference:	Courtney 2H 1358 GL + 22 KB @ 1380.0usft
Well:	Courtney Unit 2H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Oklahoma District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
11,515.0	88.81	342.64	7,308.2	4,230.3	-909.1	4,307.1	3.35
11,606.0	89.25	343.17	7,309.7	4,317.2	-935.9	4,398.0	0.76
11,697.0	89.16	342.11	7,311.0	4,404.1	-963.0	4,489.0	1.17
11,788.0	89.40	343.42	7,312.1	4,491.0	-990.0	4,580.0	1.46
11,879.0	89.34	342.11	7,313.1	4,577.9	-1,016.9	4,671.0	1.44
11,971.0	90.48	345.19	7,313.2	4,666.1	-1,042.8	4,763.0	3.57
12,062.0	90.75	344.05	7,312.3	4,753.9	-1,067.0	4,853.9	1.29
12,153.0	91.36	344.57	7,310.6	4,841.5	-1,091.6	4,944.8	0.88
12,244.0	90.92	343.87	7,308.8	4,929.0	-1,116.3	5,035.8	0.91
12,335.0	90.75	342.99	7,307.5	5,016.2	-1,142.2	5,126.7	0.98
12,426.0	90.75	342.02	7,306.3	5,103.0	-1,169.6	5,217.7	1.07
12,523.0	89.43	342.29	7,306.1	5,195.3	-1,199.3	5,314.7	1.39
12,618.0	89.69	343.78	7,306.8	5,286.2	-1,227.0	5,409.7	1.59
12,715.0	91.01	344.92	7,306.3	5,379.6	-1,253.2	5,506.7	1.80
12,811.0	87.32	341.06	7,307.7	5,471.4	-1,281.3	5,602.6	5.56
12,908.0	89.52	341.15	7,310.3	5,563.1	-1,312.7	5,699.5	2.27
13,004.0	88.90	339.30	7,311.6	5,653.4	-1,345.2	5,795.5	2.03
13,100.0	89.60	342.46	7,312.9	5,744.1	-1,376.6	5,891.4	3.37
13,196.0	90.04	342.29	7,313.2	5,835.6	-1,405.7	5,987.4	0.49
13,292.0	90.75	343.34	7,312.5	5,927.3	-1,434.0	6,083.4	1.32
13,388.0	91.01	343.08	7,311.1	6,019.2	-1,461.7	6,179.4	0.38
13,485.0	90.31	342.11	7,310.0	6,111.8	-1,490.8	6,276.4	1.23
13,580.0	90.75	342.73	7,309.1	6,202.3	-1,519.5	6,371.4	0.80
13,676.0	90.13	341.76	7,308.3	6,293.7	-1,548.7	6,467.3	1.20
13,773.0	89.78	341.76	7,308.4	6,385.9	-1,579.1	6,564.3	0.36
13,870.0	90.13	343.52	7,308.5	6,478.4	-1,608.0	6,661.3	1.85
13,966.0	90.22	343.08	7,308.2	6,570.4	-1,635.6	6,757.3	0.47
14,062.0	90.66	342.73	7,307.5	6,662.2	-1,663.8	6,853.3	0.59
14,158.0	90.75	343.52	7,306.3	6,754.0	-1,691.7	6,949.3	0.83
14,254.0	89.16	342.02	7,306.4	6,845.7	-1,720.1	7,045.3	2.28
14,350.0	89.25	342.55	7,307.7	6,937.1	-1,749.3	7,141.3	0.56
14,446.0	88.55	340.88	7,309.5	7,028.3	-1,779.5	7,237.3	1.89
14,543.0	90.22	340.62	7,310.6	7,119.8	-1,811.4	7,334.2	1.74
14,639.0	91.19	341.50	7,309.4	7,210.6	-1,842.6	7,430.2	1.36
14,735.0	91.01	340.88	7,307.5	7,301.5	-1,873.5	7,526.1	0.67
14,828.0	90.75	342.02	7,306.1	7,389.6	-1,903.1	7,619.1	1.26
14,925.0	89.87	341.15	7,305.6	7,481.7	-1,933.8	7,716.1	1.28
15,021.0	89.87	340.44	7,305.8	7,572.3	-1,965.3	7,812.1	0.74
15,117.0	89.60	340.09	7,306.3	7,662.7	-1,997.8	7,908.0	0.46
15,214.0	89.08	341.23	7,307.4	7,754.2	-2,029.9	8,004.9	1.29
15,310.0	88.55	340.00	7,309.4	7,844.7	-2,061.7	8,100.9	1.39
15,406.0	89.78	341.41	7,310.8	7,935.3	-2,093.4	8,196.8	1.95
15,503.0	90.40	342.55	7,310.6	8,027.6	-2,123.5	8,293.8	1.34
15,599.0	89.78	340.62	7,310.5	8,118.7	-2,153.8	8,389.8	2.11



Company:	Antero Resources	Local Co-ordinate Reference:	Well Courtney Unit 2H
Project:	Harrison County West Virginia	TVD Reference:	Courtney 2H 1358 GL + 22 KB @ 1380.0usft
Site:	Myer/Thaddeus/Everett/Courtney Pad/Slussar	MD Reference:	Courtney 2H 1358 GL + 22 KB @ 1380.0usft
Well:	Courtney Unit 2H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Oklahoma District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
15,695.0	90.22	341.41	7,310.5	8,209.4	-2,185.0	8,485.8	0.94
15,792.0	88.55	343.26	7,311.5	8,301.8	-2,214.4	8,582.8	2.57
15,888.0	88.64	342.90	7,313.8	8,393.7	-2,242.4	8,678.7	0.39
15,983.0	90.31	344.66	7,314.7	8,484.9	-2,268.9	8,773.7	2.55
16,073.0	90.40	345.63	7,314.2	8,571.9	-2,292.0	8,863.6	1.08
16,120.0	90.30	345.63	7,313.9	8,617.4	-2,303.6	8,910.5	0.21

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
7,088.0	7,062.2	82.4	189.4	Burkett
7,123.0	7,088.5	100.2	204.1	Tully
7,474.0	7,277.0	377.3	272.6	Marcellus

Checked By: _____ Approved By: _____ Date: _____

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