



Antero Resources
 Cecele Unit 1H
 Doddridge County WV
 Northing: 14235138.97
 Easting: 1772821.15
 As Drilled

WELL DETAILS: Cecele Unit 1H

Ground Level: 1359.0
 Northing: 14235138.97
 Easting: 1772821.15
 Slot: 30° 12' 0.396" N80° 31' 57.481" W

PROJECT DETAILS: Doddridge County WV

Cecele System: Universal Transverse Mercator (US Survey Feet)
 Datum: NAD 1983 (NAD83 CONUS)
 Ellipsoid: Clarke 1866
 Zone: Zone 17N (84 W to 78 W)
 System Datum: Mean Sea Level

REFERENCE INFORMATION:
 Coordinates (N/E) Reference: 2011 Cecele Unit 1H, Grid North
 System (U/S) Reference: 2011 Cecele Unit 1H, Grid East
 Calculation Method: Minimum Curvature



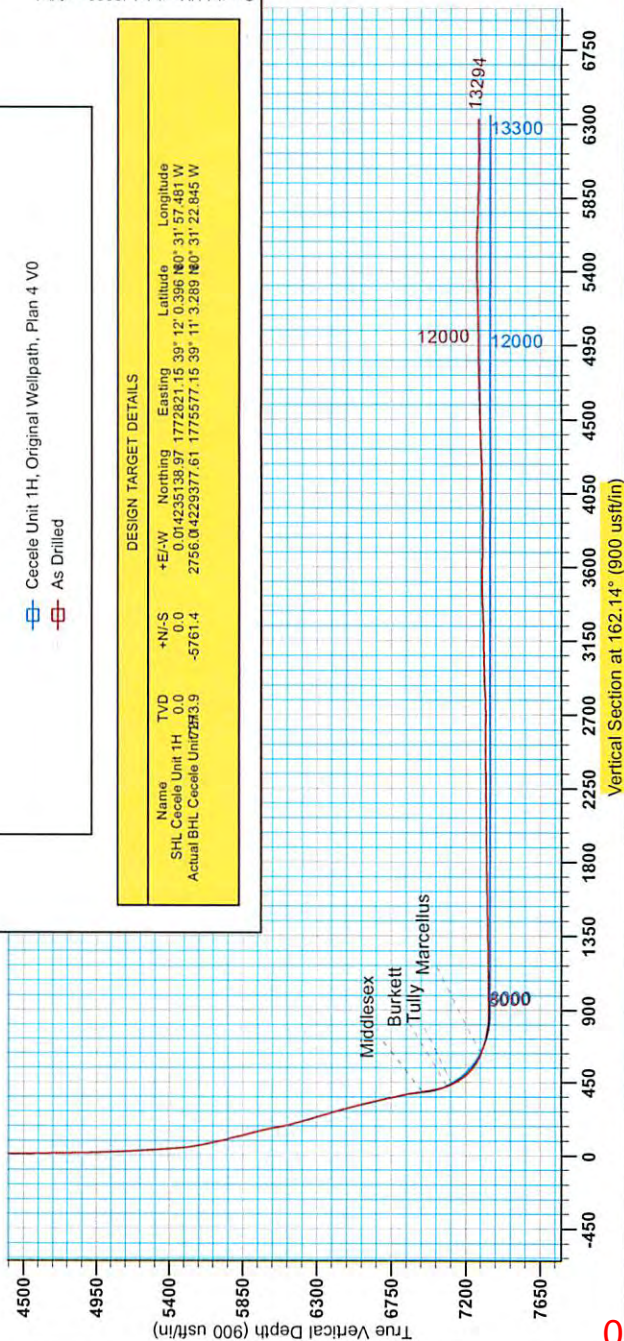
Genie Lightfoot
 Scientific Drilling
 421 South Eagle Lane
 Oklahoma City Oklahoma
 405-787-3663

LEGEND

- Cecele Unit 1H, Original Wellpath, Plan 4 V0
- As Drilled

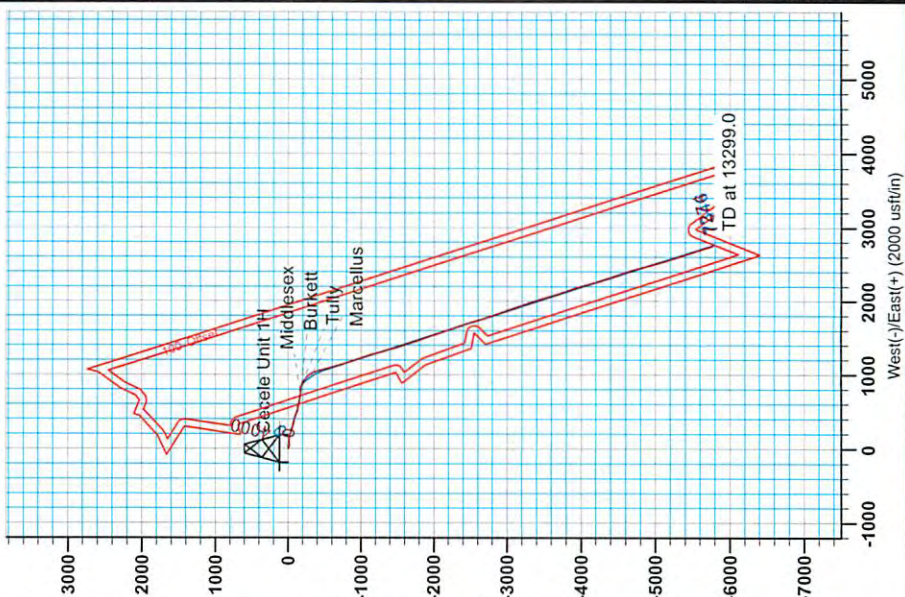
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
SHL Cecele Unit 1H	0.0	0.0	0.0	14235138.97	1772821.15	39° 12' 0.396" N	80° 31' 57.481" W
Actual BHL Cecele Unit 1H	8000	-5761.4	27556.04229377	611775577.15	39° 11' 3.289" N	80° 31' 22.845" W	



To convert Magnetic North to Grid, Subtract 0.68°
 To convert True North to Grid, Subtract 0.30°

Azimuths to Grid North
 True North: -0.29°
 Magnetic North: -0.88°
 Strength: 52.936 Gauss
 Dip Angle: 66.80°
 Date: 6/26/2013
 Model: IGRF2010



06/05/2015

Received
 Office of Oil & Gas
 MAY 18 2015



Antero Resources

Doddridge County WV
Cecele/Furbey Pad
Cecele Unit 1H
Original Wellpath

Design: As Drilled

EOW Completion Report

10 January, 2014

Received
Office of Oil & Gas
MAY 18 2015



06/05/2015



Company: Antero Resources	Local Co-ordinate Reference: Well Cecele Unit 1H
Project: Doddridge County WV	TVD Reference: Cecele 1H 1358 GL + 22 KB @ 1380.0usft
Site: Cecele/Furbey Pad	MD Reference: Cecele 1H 1358 GL + 22 KB @ 1380.0usft
Well: Cecele Unit 1H	North Reference: Grid
Wellbore: Original Wellpath	Survey Calculation Method: Minimum Curvature
Design: As Drilled	Database: Oklahoma District

Project	Doddridge County WV, McClellan District		
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	Cecele/Furbey Pad
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Site Position:		Northing:	14,235,138.97 usft	Latitude:	39° 12' 0.396 N
From:	Map	Easting:	1,772,821.15 usft	Longitude:	80° 31' 57.481 W
Position Uncertainty:	2.0 usft	Slot Radius:	13-3/16"	Grid Convergence:	0.30 °

Well	Cecele Unit 1H, Marcellus				
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Well Position	+N/-S	0.0 usft	Northing:	14,235,138.97 usft	Latitude:	39° 12' 0.396 N
	+E/-W	0.0 usft	Easting:	1,772,821.15 usft	Longitude:	80° 31' 57.481 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	6/26/2013	-8.59	66.80	52,336

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	162.14	

Survey Program	Date	1/10/2014		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
35.0	6,931.0	Survey #1 Final Gyro (Original Wellpath)	SDI Standard Keeper	Scientific Drilling Intl. Standard Wireline Keeper
7,035.0	13,294.0	Survey #3 MWD (Original Wellpath)	MWD SDI	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
35.0	0.29	146.29	35.0	-0.1	0.0	0.1	0.83
59.7	0.22	100.79	59.7	-0.1	0.1	0.2	0.84
84.5	0.26	90.42	84.5	-0.1	0.2	0.2	0.24
109.0	0.23	101.95	109.0	-0.2	0.3	0.3	0.24
209.0	0.24	92.53	209.0	-0.2	0.7	0.4	0.04
309.0	0.08	106.45	309.0	-0.2	1.0	0.5	0.16
409.0	0.09	207.43	409.0	-0.3	1.0	0.6	0.13
509.0	0.13	224.33	509.0	-0.5	0.9	0.7	0.05
609.0	0.12	296.23	609.0	-0.5	0.8	0.7	0.15
709.0	0.13	289.65	709.0	-0.4	0.6	0.6	0.02



Company:	Antero Resources	Local Co-ordinate Reference:	Well Cecele Unit 1H
Project:	Doddridge County WV	TVD Reference:	Cecele 1H 1358 GL + 22 KB @ 1380.0usft
Site:	Cecele/Furbey Pad	MD Reference:	Cecele 1H 1358 GL + 22 KB @ 1380.0usft
Well:	Cecele Unit 1H	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)
809.0	0.08	291.05	809.0	-0.4	0.4	0.5	0.05
909.0	0.17	303.48	909.0	-0.3	0.2	0.3	0.09
1,009.0	0.18	298.45	1,009.0	-0.1	-0.1	0.1	0.02
1,109.0	0.07	291.50	1,109.0	0.0	-0.3	-0.1	0.11
1,209.0	0.05	7.71	1,209.0	0.1	-0.3	-0.2	0.08
1,309.0	0.10	35.59	1,309.0	0.2	-0.3	-0.2	0.06
1,409.0	0.11	22.53	1,409.0	0.3	-0.2	-0.4	0.03
1,509.0	0.13	34.27	1,509.0	0.5	-0.1	-0.5	0.03
1,609.0	0.27	68.43	1,609.0	0.7	0.2	-0.6	0.18
1,709.0	0.34	52.75	1,709.0	1.0	0.7	-0.7	0.11
1,809.0	0.39	73.08	1,809.0	1.2	1.2	-0.8	0.14
1,909.0	0.49	73.93	1,909.0	1.5	2.0	-0.8	0.10
2,009.0	0.61	75.63	2,009.0	1.7	2.9	-0.7	0.12
2,109.0	0.61	74.73	2,109.0	2.0	3.9	-0.7	0.01
2,209.0	0.60	77.45	2,209.0	2.2	5.0	-0.6	0.03
2,309.0	0.69	74.35	2,309.0	2.5	6.0	-0.5	0.10
2,409.0	0.62	79.01	2,409.0	2.8	7.2	-0.5	0.09
2,509.0	0.62	79.15	2,509.0	3.0	8.2	-0.3	0.00
2,609.0	0.54	81.59	2,608.9	3.2	9.2	-0.2	0.08
2,709.0	0.47	96.32	2,708.9	3.2	10.1	0.1	0.15
2,809.0	0.41	85.89	2,808.9	3.2	10.9	0.3	0.10
2,909.0	0.49	94.52	2,908.9	3.2	11.6	0.6	0.10
3,009.0	0.47	96.01	3,008.9	3.1	12.5	0.9	0.02
3,109.0	0.44	94.69	3,108.9	3.0	13.3	1.2	0.03
3,209.0	0.45	94.43	3,208.9	2.9	14.0	1.5	0.01
3,309.0	0.43	94.73	3,308.9	2.9	14.8	1.8	0.02
3,409.0	0.46	101.68	3,408.9	2.8	15.6	2.1	0.06
3,509.0	0.52	95.94	3,508.9	2.6	16.4	2.5	0.08
3,609.0	0.59	100.78	3,608.9	2.5	17.4	3.0	0.08
3,709.0	0.52	101.18	3,708.9	2.3	18.3	3.4	0.07
3,809.0	0.52	107.55	3,808.9	2.1	19.2	3.9	0.06
3,909.0	0.54	109.51	3,908.9	1.8	20.1	4.5	0.03
4,009.0	0.58	102.39	4,008.9	1.5	21.0	5.0	0.08
4,109.0	0.67	112.07	4,108.9	1.2	22.1	5.6	0.14
4,209.0	0.68	118.80	4,208.9	0.7	23.1	6.4	0.08
4,309.0	0.67	120.29	4,308.9	0.1	24.1	7.3	0.02
4,409.0	0.74	129.63	4,408.9	-0.6	25.1	8.3	0.13
4,509.0	0.78	139.79	4,508.9	-1.5	26.1	9.4	0.14
4,609.0	0.81	137.04	4,608.9	-2.6	27.0	10.7	0.05
4,709.0	0.98	143.78	4,708.8	-3.8	28.0	12.2	0.20
4,809.0	1.07	147.95	4,808.8	-5.3	29.0	13.9	0.12
4,847.3	1.19	146.51	4,847.1	-5.9	29.4	14.6	0.32
4,858.0	1.13	145.73	4,857.8	-6.1	29.5	14.8	0.58
4,883.9	1.18	145.65	4,883.7	-6.5	29.8	15.3	0.19



Company:	Antero Resources	Local Co-ordinate Reference:	Well Cecele Unit 1H
Project:	Doddridge County WV	TVD Reference:	Cecele 1H 1358 GL + 22 KB @ 1380.0usft
Site:	Cecele/Furbey Pad	MD Reference:	Cecele 1H 1358 GL + 22 KB @ 1380.0usft
Well:	Cecele Unit 1H	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)
4,907.6	1.15	145.64	4,907.4	-6.9	30.1	15.8	0.13
4,933.9	1.47	134.89	4,933.7	-7.4	30.5	16.3	1.53
4,958.7	2.33	117.70	4,958.5	-7.8	31.1	17.0	4.12
4,983.8	3.08	112.03	4,983.6	-8.3	32.2	17.8	3.17
5,008.1	3.93	104.91	5,007.8	-8.8	33.6	18.7	3.92
5,033.2	5.51	98.61	5,032.8	-9.2	35.6	19.7	6.62
5,058.0	6.57	96.34	5,057.5	-9.5	38.2	20.8	4.38
5,083.9	7.72	94.87	5,083.2	-9.8	41.4	22.0	4.50
5,108.3	8.78	91.84	5,107.3	-10.0	44.9	23.3	4.70
5,132.8	9.14	87.37	5,131.5	-10.0	48.8	24.4	3.19
5,158.7	9.66	83.35	5,157.1	-9.6	53.0	25.4	3.23
5,182.3	10.38	82.12	5,180.3	-9.1	57.0	26.2	3.18
5,208.6	11.17	81.64	5,206.2	-8.4	61.9	27.0	3.02
5,233.6	11.89	84.20	5,230.7	-7.8	66.9	27.9	3.53
5,258.8	12.66	88.74	5,255.3	-7.5	72.2	29.3	4.90
5,283.9	13.03	90.59	5,279.8	-7.4	77.8	30.9	2.21
5,307.4	13.32	91.90	5,302.6	-7.6	83.1	32.7	1.77
5,333.2	13.83	92.08	5,327.7	-7.8	89.2	34.8	1.98
5,357.7	14.27	90.58	5,351.5	-7.9	95.1	36.7	2.33
5,382.8	14.72	87.60	5,375.8	-7.8	101.4	38.5	3.47
5,408.1	14.98	85.84	5,400.2	-7.4	107.9	40.2	2.05
5,432.6	15.03	86.30	5,423.9	-7.0	114.2	41.7	0.52
5,459.0	15.27	89.79	5,449.4	-6.8	121.1	43.6	3.57
5,483.1	15.87	93.28	5,472.6	-6.9	127.6	45.7	4.61
5,507.7	16.36	96.56	5,496.2	-7.5	134.4	48.4	4.20
5,534.0	17.54	99.33	5,521.4	-8.6	142.0	51.7	5.43
5,558.0	18.16	101.00	5,544.2	-9.9	149.2	55.2	3.36
5,583.8	19.19	103.30	5,568.7	-11.6	157.3	59.3	4.90
5,607.4	20.10	105.37	5,590.9	-13.6	165.0	63.5	4.86
5,633.2	20.77	105.94	5,615.1	-16.0	173.6	68.5	2.71
5,657.5	21.03	105.74	5,637.8	-18.4	182.0	73.3	1.11
5,683.7	21.61	105.92	5,662.2	-21.0	191.1	78.6	2.23
5,708.5	22.26	106.03	5,685.2	-23.6	200.0	83.8	2.63
5,733.8	22.76	106.41	5,708.6	-26.3	209.3	89.2	2.06
5,758.6	23.08	106.54	5,731.4	-29.0	218.6	94.7	1.31
5,783.4	23.19	106.72	5,754.2	-31.8	227.9	100.2	0.52
5,808.1	22.51	107.49	5,777.0	-34.6	237.1	105.7	3.01
5,833.7	22.28	107.90	5,800.6	-37.6	246.4	111.3	1.08
5,857.7	22.44	107.87	5,822.8	-40.4	255.1	116.7	0.67
5,883.5	22.99	108.15	5,846.6	-43.5	264.6	122.5	2.17
5,907.7	23.93	109.24	5,868.8	-46.6	273.7	128.2	4.27
5,933.7	24.23	109.59	5,892.6	-50.1	283.7	134.7	1.28
5,958.6	24.15	109.74	5,915.3	-53.5	293.3	140.9	0.41
5,983.0	23.84	109.56	5,937.6	-56.8	302.7	146.9	1.31
6,008.5	23.64	108.67	5,960.9	-60.2	312.3	153.1	1.60



Company: Antero Resources	Local Co-ordinate Reference: Well Cecele Unit 1H
Project: Doddridge County WV	TVD Reference: Cecele 1H 1358 GL + 22 KB @ 1380.0usft
Site: Cecele/Furbey Pad	MD Reference: Cecele 1H 1358 GL + 22 KB @ 1380.0usft
Well: Cecele Unit 1H	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)	
6,033.4	22.63	106.23	5,983.8	-63.1	321.7	158.8	5.59	
6,058.3	21.60	103.05	6,006.9	-65.5	330.7	163.8	6.35	
6,083.0	21.01	100.26	6,029.9	-67.3	339.5	168.2	4.74	
6,108.5	21.42	99.47	6,053.7	-68.9	348.6	172.5	1.96	
6,133.4	22.41	98.58	6,076.8	-70.4	357.8	176.7	4.20	
6,158.5	23.45	98.25	6,099.9	-71.8	367.5	181.0	4.18	
6,183.4	24.81	99.08	6,122.6	-73.3	377.5	185.6	5.63	
6,208.4	26.04	101.41	6,145.2	-75.3	388.1	190.7	6.34	
6,233.3	26.78	104.05	6,167.5	-77.7	398.9	196.3	5.57	
6,258.4	27.04	107.27	6,189.9	-80.8	409.8	202.6	5.89	
6,283.5	26.96	109.37	6,212.2	-84.3	420.6	209.3	3.81	
6,307.5	26.92	110.29	6,233.6	-88.0	430.9	215.9	1.74	
6,333.7	26.60	110.53	6,257.0	-92.1	441.9	223.2	1.29	
6,358.5	26.39	110.79	6,279.2	-96.0	452.3	230.1	0.97	
6,383.6	26.44	110.99	6,301.7	-100.0	462.7	237.1	0.41	
6,408.0	26.35	111.35	6,323.6	-103.9	472.8	243.9	0.76	
6,433.4	26.43	111.24	6,346.3	-108.0	483.3	251.1	0.37	
6,458.8	26.45	110.65	6,369.1	-112.1	493.9	258.2	1.04	
6,483.5	26.96	109.00	6,391.1	-115.9	504.4	264.9	3.64	
6,508.6	27.33	106.49	6,413.5	-119.3	515.3	271.6	4.79	
6,534.0	27.78	104.62	6,436.0	-122.5	526.6	278.1	3.84	
6,558.5	27.67	102.36	6,457.7	-125.1	537.7	284.0	4.32	
6,582.8	27.17	101.35	6,479.2	-127.4	548.6	289.6	2.80	
6,608.4	26.85	101.27	6,502.0	-129.7	560.0	295.2	1.26	
6,633.9	26.90	101.33	6,524.8	-132.0	571.3	300.8	0.23	
6,657.9	26.56	101.58	6,546.2	-134.1	581.9	306.1	1.49	
6,683.5	27.10	101.39	6,569.1	-136.4	593.2	311.8	2.14	
6,708.9	27.47	101.07	6,591.6	-138.7	604.6	317.5	1.56	
6,732.6	27.47	101.05	6,612.7	-140.8	615.4	322.7	0.05	
6,758.1	27.27	101.08	6,635.3	-143.0	626.9	328.4	0.79	
6,783.5	27.01	101.40	6,657.9	-145.3	638.2	334.0	1.18	
6,809.0	26.60	101.39	6,680.7	-147.6	649.5	339.7	1.61	
6,833.3	26.60	100.33	6,702.4	-149.6	660.2	344.9	1.95	
6,858.9	26.72	98.86	6,725.3	-151.5	671.5	350.2	2.63	
6,883.8	26.25	98.16	6,747.6	-153.2	682.5	355.1	2.26	
6,908.3	25.59	98.20	6,769.6	-154.7	693.1	359.8	2.69	
6,931.0	25.49	98.38	6,790.1	-156.1	702.8	364.1	0.56	
7,036.0	24.27	98.29	6,885.3	-162.5	746.5	383.6	1.16	
7,068.0	24.03	97.26	6,914.5	-164.3	759.5	389.3	1.52	
7,092.0	23.28	94.90	6,936.5	-165.3	769.0	393.2	5.03	
Middlesex								
7,100.0	23.04	94.08	6,943.9	-165.6	772.2	394.4	5.03	
7,133.0	23.09	91.44	6,974.2	-166.2	785.1	399.0	3.14	
7,165.0	24.80	93.62	7,003.5	-166.8	798.1	403.5	6.02	



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Project:	Doddridge County WV	TVD Reference:	Cecele 1H 1358 GL + 22 KB @ 1380.0usft
Site:	Cecele/Furbey Pad	MD Reference:	Cecele 1H 1358 GL + 22 KB @ 1380.0usft
Well:	Cecele Unit 1H	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)
7,197.0	27.50	98.50	7,032.2	-168.3	812.1	409.2	10.78
7,229.0	30.49	104.26	7,060.2	-171.4	827.2	416.8	12.77
7,261.0	33.77	108.43	7,087.3	-176.2	843.6	426.4	12.37
7,262.0	33.83	108.55	7,088.1	-176.4	844.1	426.7	8.94
Burkett							
7,293.0	35.70	112.14	7,113.6	-182.5	860.7	437.7	8.94
7,298.0	36.24	112.79	7,117.7	-183.6	863.4	439.6	13.31
Tully							
7,325.0	39.24	116.04	7,139.0	-190.5	878.4	450.7	13.31
7,357.0	42.47	120.20	7,163.2	-200.4	896.8	465.8	13.19
7,389.0	45.80	123.09	7,186.2	-212.1	915.8	482.7	12.16
7,422.0	48.92	126.45	7,208.5	-225.9	935.7	502.0	12.06
7,454.0	52.20	130.95	7,228.9	-241.4	955.0	522.6	14.93
7,486.0	56.14	135.34	7,247.6	-259.1	973.9	545.3	16.59
7,518.0	60.95	140.80	7,264.3	-279.4	992.1	570.2	20.92
7,550.0	65.77	146.48	7,278.7	-302.5	1,009.0	597.4	21.87
7,582.0	67.95	152.37	7,291.2	-327.8	1,023.9	626.0	18.24
7,583.0	68.06	152.55	7,291.6	-328.6	1,024.4	627.0	20.45
Marcellus							
7,614.0	71.64	158.13	7,302.3	-355.1	1,036.5	655.8	20.45
7,638.0	73.66	162.34	7,309.5	-376.6	1,044.2	678.7	18.74
7,669.0	77.47	164.32	7,317.2	-405.4	1,052.8	708.7	13.76
7,701.0	79.13	165.31	7,323.7	-435.6	1,061.0	740.0	6.01
7,733.0	80.64	165.29	7,329.3	-466.1	1,069.0	771.5	4.72
7,765.0	84.50	165.73	7,333.4	-496.8	1,077.0	803.2	12.14
7,862.0	89.60	164.68	7,338.4	-590.4	1,101.7	899.9	5.37
7,958.0	91.36	163.62	7,337.6	-682.8	1,127.9	995.8	2.14
8,054.0	91.63	162.57	7,335.1	-774.6	1,155.8	1,091.7	1.13
8,151.0	89.69	161.16	7,334.0	-866.8	1,186.0	1,188.7	2.47
8,247.0	90.40	161.95	7,333.9	-957.8	1,216.4	1,284.7	1.11
8,342.0	91.63	162.13	7,332.2	-1,048.2	1,245.7	1,379.7	1.31
8,439.0	90.66	161.95	7,330.3	-1,140.4	1,275.6	1,476.7	1.02
8,535.0	91.19	163.53	7,328.7	-1,232.1	1,304.1	1,572.7	1.74
8,631.0	90.48	165.12	7,327.3	-1,324.5	1,330.0	1,668.6	1.81
8,722.0	91.28	165.82	7,325.9	-1,412.6	1,352.8	1,759.4	1.17
8,813.0	91.45	165.03	7,323.8	-1,500.6	1,375.7	1,850.2	0.89
8,904.0	90.22	160.72	7,322.5	-1,587.6	1,402.5	1,941.2	4.92
8,996.0	89.34	161.25	7,322.8	-1,674.5	1,432.5	2,033.2	1.12
9,087.0	91.63	160.81	7,322.0	-1,760.6	1,462.1	2,124.1	2.56
9,178.0	90.31	160.19	7,320.5	-1,846.4	1,492.4	2,215.1	1.60
9,269.0	91.45	162.04	7,319.1	-1,932.4	1,521.9	2,306.1	2.39
9,361.0	90.84	161.60	7,317.3	-2,019.8	1,550.6	2,398.0	0.82
9,452.0	90.13	161.51	7,316.5	-2,106.2	1,579.4	2,489.0	0.79
9,543.0	89.34	160.19	7,316.9	-2,192.1	1,609.2	2,580.0	1.69
9,634.0	87.93	159.40	7,319.1	-2,277.5	1,640.6	2,670.9	1.78

Company:	Antero Resources	Local Co-ordinate Reference:	Well Cecele Unit 1H
Project:	Doddridge County WV	TVD Reference:	Cecele 1H 1358 GL + 22 KB @ 1380.0usft
Site:	Cecele/Furbey Pad	MD Reference:	Cecele 1H 1358 GL + 22 KB @ 1380.0usft
Well:	Cecele Unit 1H	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)
9,724.0	92.95	162.65	7,318.4	-2,362.6	1,669.9	2,760.8	6.64
9,821.0	92.42	163.09	7,313.8	-2,455.1	1,698.4	2,857.7	0.71
9,917.0	91.54	163.18	7,310.5	-2,547.0	1,726.3	2,953.7	0.92
10,014.0	91.10	163.36	7,308.3	-2,639.8	1,754.2	3,050.6	0.49
10,110.0	91.10	160.98	7,306.4	-2,731.2	1,783.6	3,146.6	2.48
10,207.0	92.42	160.46	7,303.5	-2,822.7	1,815.6	3,243.5	1.46
10,303.0	92.42	161.42	7,299.4	-2,913.4	1,846.9	3,339.4	1.00
10,399.0	91.10	160.55	7,296.5	-3,004.1	1,878.2	3,435.3	1.65
10,496.0	89.52	159.75	7,295.9	-3,095.3	1,911.1	3,532.3	1.83
10,592.0	88.20	160.90	7,297.9	-3,185.7	1,943.4	3,628.2	1.82
10,688.0	89.25	162.22	7,300.0	-3,276.7	1,973.8	3,724.2	1.76
10,785.0	91.19	163.36	7,299.6	-3,369.4	2,002.5	3,821.1	2.32
10,881.0	90.07	163.00	7,298.6	-3,461.3	2,030.2	3,917.1	1.23
10,977.0	91.63	162.83	7,297.1	-3,553.0	2,058.4	4,013.1	1.63
11,074.0	91.28	160.98	7,294.7	-3,645.2	2,088.6	4,110.1	1.94
11,170.0	92.15	161.34	7,291.8	-3,736.0	2,119.5	4,206.0	0.98
11,267.0	91.10	161.34	7,289.1	-3,827.9	2,150.6	4,303.0	1.08
11,362.0	92.33	162.22	7,286.2	-3,918.1	2,180.3	4,397.9	1.59
11,459.0	90.75	163.97	7,283.6	-4,010.8	2,208.4	4,494.9	2.43
11,555.0	91.36	163.80	7,281.8	-4,103.0	2,235.1	4,590.8	0.66
11,652.0	91.89	163.09	7,279.1	-4,196.0	2,262.7	4,687.7	0.91
11,748.0	91.28	162.39	7,276.4	-4,287.6	2,291.2	4,783.7	0.97
11,845.0	90.75	161.07	7,274.7	-4,379.7	2,321.6	4,880.7	1.47
11,941.0	90.22	160.81	7,273.9	-4,470.5	2,352.9	4,976.6	0.61
12,037.0	91.77	162.41	7,272.2	-4,561.5	2,383.2	5,072.6	2.32
12,134.0	91.71	161.69	7,269.3	-4,653.8	2,413.1	5,169.6	0.74
12,230.0	91.01	164.85	7,267.0	-4,745.7	2,440.7	5,265.5	3.37
12,326.0	91.36	165.29	7,265.0	-4,838.4	2,465.5	5,361.4	0.59
12,423.0	90.40	163.97	7,263.5	-4,931.9	2,491.2	5,458.3	1.68
12,519.0	89.43	164.32	7,263.7	-5,024.3	2,517.4	5,554.2	1.07
12,616.0	87.85	162.92	7,266.0	-5,117.3	2,544.7	5,651.1	2.18
12,711.0	88.11	162.04	7,269.3	-5,207.8	2,573.3	5,746.1	0.97
12,807.0	88.46	161.34	7,272.2	-5,298.9	2,603.5	5,842.0	0.81
12,903.0	89.16	161.51	7,274.2	-5,389.9	2,634.0	5,938.0	0.75
12,999.0	89.52	161.07	7,275.3	-5,480.8	2,664.8	6,034.0	0.59
13,096.0	89.87	162.13	7,275.8	-5,572.9	2,695.4	6,131.0	1.15
13,193.0	91.28	162.65	7,274.8	-5,665.3	2,724.8	6,228.0	1.55
13,243.0	90.84	161.78	7,273.9	-5,712.9	2,740.1	6,278.0	1.95
13,294.0	89.20	161.78	7,273.9	-5,761.4	2,756.0	6,329.0	3.22

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Company:	Antero Resources	Local Co-ordinate Reference:	Well Cecele Unit 1H
Project:	Doddridge County WV	TVD Reference:	Cecele 1H 1358 GL + 22 KB @ 1380.0usft
Site:	Cecele/Furbey Pad	MD Reference:	Cecele 1H 1358 GL + 22 KB @ 1380.0usft
Well:	Cecele Unit 1H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Oklahoma District

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
7,092.0	6,936.5	-165.3	769.0	Middlesex
7,262.0	7,088.1	-176.4	844.1	Burkett
7,298.0	7,117.7	-183.6	863.4	Tully
7,583.0	7,291.6	-328.6	1,024.4	Marcellus

Checked By: _____ Approved By: _____ Date: _____

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