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WV GEOLOGICAL SURVEY  
MORGANTOWN, WV



**Honey Unit 1H**  
**Doddridge County WV**  
**Northing: 14236743.38**  
**Eastings: 1739363.09**  
**As Drilled**



Azimuths to Grid North  
True North: -0.22°  
Magnetic North: -8.77°  
Magnetic Field  
Strength: 52189.6nT  
Dip Angle: 66.78°  
Date: 7/17/2014  
Model: BGGM2014

To convert Magnetic North to Grid, Subtract 8.77°  
To convert True North to Grid, Subtract 0.22°

**SITE DETAILS: Dufflemeyer Pad**  
Site Center: Dufflemeyer Unit 2H  
Site Centre Northing: 14236747.63  
Eastings: 1739372.13  
Positional Uncertainty: 0.0  
Convergence: 0.22  
Local North Grid

**WELL DETAILS: Honey Unit 1H**  
Ground Level: 1081.0  
Northing: 14236743.38  
Eastings: 1739363.09  
Longitude: 80° 39' 2.559 W

**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

Genie Lightfoot  
9:36, October 14 2014  
Scientific Drilling  
421 South Eadie Lane  
Oklahoma City, OK 73124

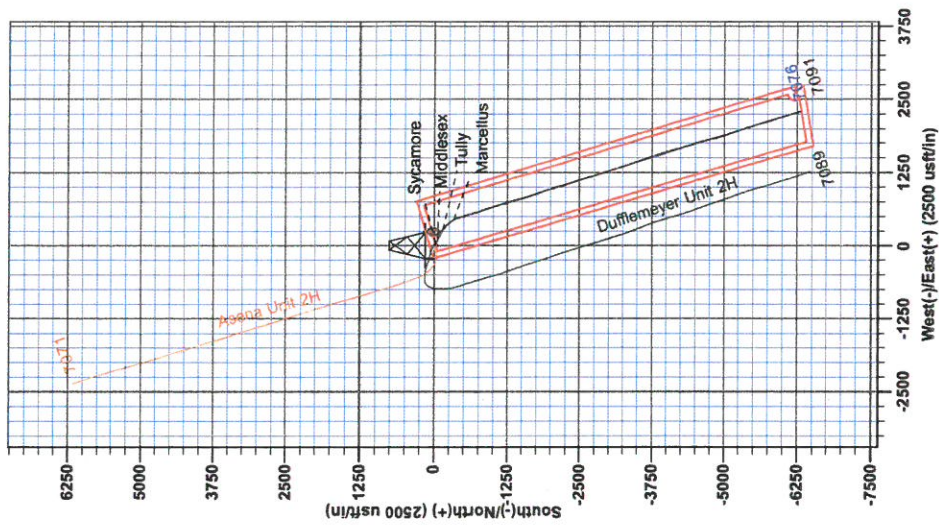
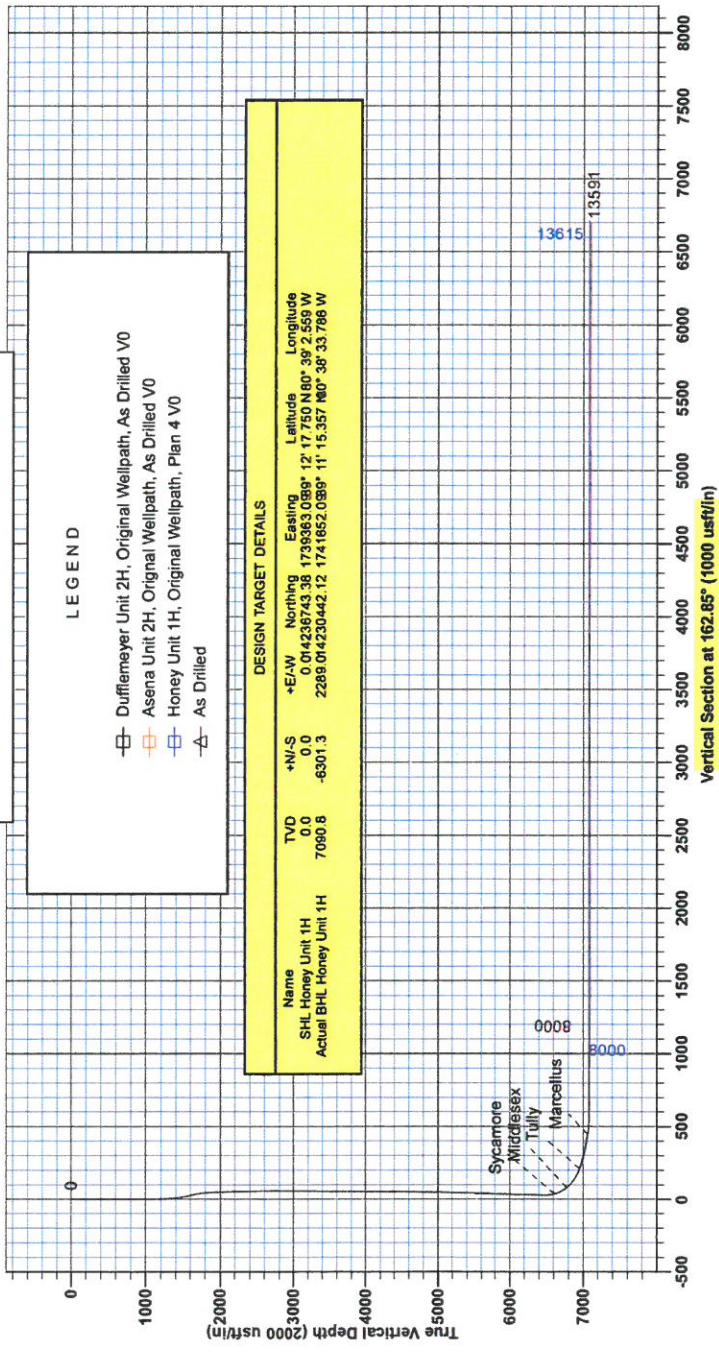
Part 347: Honey 1H 1081 GL + 25 KB @ 1106 Duff  
1081.0

**LEGEND**

- Dufflemeyer Unit 2H, Original Wellpath, As Drilled VO
- Asena Unit 2H, Original Wellpath, As Drilled VO
- Honey Unit 1H, Original Wellpath, Plan 4 VO
- As Drilled

**DESIGN TARGET DETAILS**

Name	TVD	+N/-S	+E/-W	Northing	Eastings	Latitude	Longitude
SHL Honey Unit 1H	0.0	0.0	0.0	14236743.38	1739363.099	12° 17' 50" N	80° 39' 2.559 W
Actual BHL Honey Unit 1H	7060.8	-6301.3	2289.0	14230442.12	1741652.099	11° 15.357' N	80° 38' 33.798 W





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# Antero Resources

Doddridge County WV  
Dufflemeyer Pad  
Honey Unit 1H  
Original Wellpath

Design: As Drilled

## EOW Completion Report

14 October, 2014



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EOW Completion Report



<b>Company:</b> Antero Resources	<b>Local Co-ordinate Reference:</b> Well Honey Unit 1H
<b>Project:</b> Doddridge County WV	<b>TVD Reference:</b> Patt 347: Honey 1H 1081 GL + 25 KB @ 1106.0u:
<b>Site:</b> Dufflemeyer Pad	<b>MD Reference:</b> Patt 347: Honey 1H 1081 GL + 25 KB @ 1106.0u:
<b>Well:</b> Honey 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>	Doddridge County WV, McClellan District		
<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>	Dufflemeyer Pad				
<b>Site Position:</b>		<b>Northing:</b>	14,236,747.63 usft	<b>Latitude:</b>	39° 12' 17.792 N
<b>From:</b>	Map	<b>Easting:</b>	1,739,372.13 usft	<b>Longitude:</b>	80° 39' 2.444 W
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	13-3/16"	<b>Grid Convergence:</b>	0.22 °

<b>Well</b>	Honey Unit 1H					
<b>Well Position</b>	<b>+N/-S</b>	0.0 usft	<b>Northing:</b>	14,236,743.38 usft	<b>Latitude:</b>	39° 12' 17.750 N
	<b>+E/-W</b>	0.0 usft	<b>Easting:</b>	1,739,363.09 usft	<b>Longitude:</b>	80° 39' 2.559 W
<b>Position Uncertainty</b>	2.0 usft		<b>Wellhead Elevation:</b>	1,106.0 usft	<b>Ground Level:</b>	1,081.0 usft

<b>Wellbore</b>	Original Wellpath				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	BGGM2014	7/17/2014	-8.55	66.78	52,190

<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	162.85	

<b>Survey Program</b>	Date 10/14/2014				
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
37.0	6,344.0	Survey #6 Final Gyro (Original Wellpath)	SDI Standard Keeper	Scientific Drilling Intl. Standard Wireline Keeper	
6,419.0	13,591.0	Survey #7 MWD (Original Wellpath)	MWD SDI	MWD - Standard ver 1.0.1	

<b>Survey</b>	<b>MD (usft)</b>	<b>Inc (°)</b>	<b>Azi (azimuth) (°)</b>	<b>TVD (usft)</b>	<b>N/S (usft)</b>	<b>E/W (usft)</b>	<b>V. Sec (usft)</b>	<b>DLeg (°/100usft)</b>
	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00
	37.0	0.05	127.33	37.0	0.0	0.0	0.0	0.14
	62.0	0.09	127.33	62.0	0.0	0.0	0.0	0.16
	87.0	0.14	127.33	87.0	-0.1	0.1	0.1	0.20
	112.0	0.18	127.33	112.0	-0.1	0.1	0.1	0.16
	137.0	0.17	142.60	137.0	-0.2	0.2	0.2	0.19
	162.0	0.22	155.94	162.0	-0.2	0.2	0.3	0.27
	187.0	0.19	146.09	187.0	-0.3	0.3	0.4	0.18
	212.0	0.14	151.31	212.0	-0.4	0.3	0.4	0.21
	237.0	0.15	123.26	237.0	-0.4	0.4	0.5	0.28
	262.0	0.17	149.34	262.0	-0.5	0.4	0.6	0.30

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EOW Completion Report



<b>Company:</b> Antero Resources	<b>Local Co-ordinate Reference:</b> Well Honey Unit 1H
<b>Project:</b> Doddridge County WV	<b>TVD Reference:</b> Patt 347: Honey 1H 1081 GL + 25 KB @ 1106.0u:
<b>Site:</b> Dufflemeyer Pad	<b>MD Reference:</b> Patt 347: Honey 1H 1081 GL + 25 KB @ 1106.0u:
<b>Well:</b> Honey 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)			
287.0	0.18	144.24	287.0	-0.5	0.4	0.6	0.07			
312.0	0.17	131.51	312.0	-0.6	0.5	0.7	0.16			
337.0	0.18	123.22	337.0	-0.6	0.6	0.8	0.11			
362.0	0.20	103.13	362.0	-0.7	0.6	0.8	0.28			
387.0	0.21	113.21	387.0	-0.7	0.7	0.9	0.15			
412.0	0.18	93.00	412.0	-0.7	0.8	0.9	0.30			
437.0	0.19	93.64	437.0	-0.7	0.9	0.9	0.04			
462.0	0.21	98.32	462.0	-0.7	1.0	1.0	0.10			
487.0	0.18	99.71	487.0	-0.7	1.0	1.0	0.12			
512.0	0.21	96.48	512.0	-0.7	1.1	1.0	0.13			
537.0	0.09	82.75	537.0	-0.7	1.2	1.1	0.50			
562.0	0.23	100.87	562.0	-0.8	1.3	1.1	0.59			
587.0	0.19	95.63	587.0	-0.8	1.4	1.1	0.18			
612.0	0.26	92.00	612.0	-0.8	1.4	1.2	0.29			
637.0	0.18	102.92	637.0	-0.8	1.5	1.2	0.36			
662.0	0.17	110.04	662.0	-0.8	1.6	1.2	0.10			
687.0	0.26	90.20	687.0	-0.8	1.7	1.3	0.46			
712.0	0.24	117.88	712.0	-0.8	1.8	1.3	0.48			
737.0	0.27	125.72	737.0	-0.9	1.9	1.4	0.18			
762.0	0.20	126.22	762.0	-1.0	2.0	1.5	0.28			
787.0	0.16	127.81	787.0	-1.0	2.1	1.6	0.16			
812.0	0.21	128.62	812.0	-1.1	2.1	1.6	0.20			
837.0	0.19	132.63	837.0	-1.1	2.2	1.7	0.10			
862.0	0.12	112.94	862.0	-1.2	2.2	1.8	0.35			
887.0	0.21	111.82	887.0	-1.2	2.3	1.8	0.36			
912.0	0.16	72.43	912.0	-1.2	2.4	1.8	0.53			
937.0	0.17	126.47	937.0	-1.2	2.4	1.9	0.60			
962.0	0.16	131.29	962.0	-1.2	2.5	1.9	0.07			
987.0	0.25	150.11	987.0	-1.3	2.6	2.0	0.45			
1,012.0	0.16	117.19	1,012.0	-1.4	2.6	2.1	0.58			
1,037.0	0.29	127.48	1,037.0	-1.4	2.7	2.2	0.54			
1,062.0	0.30	113.97	1,062.0	-1.5	2.8	2.3	0.28			
1,087.0	0.26	123.07	1,087.0	-1.6	2.9	2.3	0.24			
1,112.0	0.37	169.84	1,112.0	-1.7	3.0	2.5	1.08			
1,137.0	0.26	171.06	1,137.0	-1.8	3.0	2.6	0.44			
1,162.0	0.35	180.86	1,162.0	-1.9	3.0	2.7	0.41			
1,187.0	0.40	181.96	1,187.0	-2.1	3.0	2.9	0.20			
1,212.0	0.49	192.49	1,212.0	-2.3	3.0	3.1	0.48			
1,237.0	0.86	209.22	1,237.0	-2.6	2.9	3.3	1.66			
1,262.0	1.30	215.34	1,262.0	-3.0	2.6	3.6	1.82			
1,287.0	1.61	218.11	1,287.0	-3.5	2.2	4.0	1.27			
1,312.0	2.20	216.50	1,312.0	-4.1	1.7	4.4	2.37			
1,337.0	3.02	212.28	1,336.9	-5.1	1.1	5.2	3.37			
1,362.0	3.61	208.40	1,361.9	-6.3	0.4	6.1	2.52			

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**Company:** Antero Resources  
**Project:** Doddridge County WV  
**Site:** Dufflemeyer Pad  
**Well:** Honey Unit 1H  
**Wellbore:** Original Wellpath  
**Design:** As Drilled

**Local Co-ordinate Reference:** Well Honey Unit 1H  
**TVD Reference:** Patt 347: Honey 1H 1081 GL + 25 KB @ 1106.0u:  
**MD Reference:** Patt 347: Honey 1H 1081 GL + 25 KB @ 1106.0u:  
**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)
1,387.0	3.93	204.22	1,386.8	-7.8	-0.4	7.3	1.69
1,412.0	4.20	196.18	1,411.8	-9.4	-1.0	8.7	2.52
1,437.0	4.53	186.02	1,436.7	-11.3	-1.3	10.4	3.36
1,462.0	4.87	178.40	1,461.6	-13.4	-1.4	12.3	2.84
1,487.0	5.08	174.21	1,486.5	-15.5	-1.3	14.5	1.68
1,512.0	5.29	171.50	1,511.4	-17.8	-1.0	16.7	1.29
1,537.0	5.79	167.85	1,536.3	-20.1	-0.6	19.1	2.45
1,562.0	6.18	165.39	1,561.2	-22.7	0.1	21.7	1.87
1,587.0	6.33	164.98	1,586.0	-25.3	0.7	24.4	0.63
1,612.0	6.35	164.63	1,610.9	-28.0	1.5	27.2	0.17
1,637.0	6.39	163.58	1,635.7	-30.6	2.2	29.9	0.49
1,662.0	6.52	162.85	1,660.6	-33.3	3.0	32.7	0.61
1,687.0	6.53	162.75	1,685.4	-36.0	3.9	35.6	0.06
1,712.0	5.93	160.65	1,710.2	-38.6	4.7	38.3	2.57
1,737.0	4.82	155.13	1,735.1	-40.8	5.6	40.6	4.89
1,762.0	3.77	148.20	1,760.1	-42.4	6.5	42.5	4.68
1,787.0	2.91	140.66	1,785.0	-43.6	7.3	43.8	3.86
1,812.0	2.25	130.90	1,810.0	-44.4	8.1	44.8	3.16
1,837.0	1.96	125.41	1,835.0	-45.0	8.8	45.6	1.41
1,862.0	1.86	123.78	1,860.0	-45.5	9.5	46.3	0.46
1,887.0	1.80	121.15	1,885.0	-45.9	10.2	46.9	0.41
1,912.0	1.75	121.53	1,909.9	-46.3	10.8	47.4	0.21
1,937.0	1.66	123.73	1,934.9	-46.7	11.5	48.0	0.45
1,962.0	1.52	122.07	1,959.9	-47.1	12.0	48.5	0.59
1,987.0	1.43	122.31	1,984.9	-47.4	12.6	49.0	0.36
2,012.0	1.38	126.03	2,009.9	-47.8	13.1	49.5	0.42
2,037.0	1.30	124.20	2,034.9	-48.1	13.6	50.0	0.36
2,062.0	1.20	122.82	2,059.9	-48.4	14.0	50.4	0.42
2,087.0	1.10	124.20	2,084.9	-48.7	14.4	50.8	0.42
2,112.0	1.03	124.46	2,109.9	-48.9	14.8	51.1	0.28
2,137.0	0.96	127.44	2,134.9	-49.2	15.2	51.5	0.35
2,162.0	0.92	130.73	2,159.9	-49.5	15.5	51.8	0.27
2,187.0	0.91	130.41	2,184.9	-49.7	15.8	52.2	0.04
2,212.0	0.88	132.01	2,209.9	-50.0	16.1	52.5	0.16
2,237.0	0.85	134.16	2,234.9	-50.2	16.4	52.8	0.18
2,262.0	0.81	135.79	2,259.9	-50.5	16.6	53.1	0.19
2,287.0	0.76	140.03	2,284.9	-50.7	16.9	53.5	0.31
2,312.0	0.74	138.85	2,309.9	-51.0	17.1	53.8	0.10
2,337.0	0.71	137.18	2,334.9	-51.2	17.3	54.0	0.15
2,362.0	0.65	139.50	2,359.9	-51.5	17.5	54.3	0.26
2,387.0	0.63	142.49	2,384.9	-51.7	17.6	54.6	0.16
2,412.0	0.71	146.12	2,409.9	-51.9	17.8	54.9	0.36
2,437.0	0.64	144.19	2,434.9	-52.1	18.0	55.1	0.29
2,462.0	0.52	142.18	2,459.9	-52.4	18.1	55.4	0.49
2,487.0	0.44	146.16	2,484.9	-52.5	18.3	55.6	0.35



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EOW Completion Report



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**Site:** Dufflemeyer Pad  
**Well:** Honey Unit 1H  
**Wellbore:** Original Wellpath  
**Design:** As Drilled

**Local Co-ordinate Reference:** Well Honey Unit 1H  
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**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)
2,512.0	0.41	149.29	2,509.9	-52.7	18.4	55.7	0.15
2,537.0	0.40	149.03	2,534.9	-52.8	18.5	55.9	0.04
2,562.0	0.31	148.52	2,559.9	-53.0	18.5	56.1	0.36
2,587.0	0.28	145.54	2,584.8	-53.1	18.6	56.2	0.13
2,612.0	0.29	145.71	2,609.8	-53.2	18.7	56.3	0.04
2,637.0	0.25	142.68	2,634.8	-53.3	18.7	56.4	0.17
2,662.0	0.19	136.11	2,659.8	-53.3	18.8	56.5	0.26
2,687.0	0.15	117.98	2,684.8	-53.4	18.9	56.6	0.27
2,712.0	0.10	72.73	2,709.8	-53.4	18.9	56.6	0.43
2,737.0	0.07	37.86	2,734.8	-53.4	18.9	56.6	0.23
2,762.0	0.08	337.36	2,759.8	-53.3	18.9	56.6	0.30
2,787.0	0.15	311.08	2,784.8	-53.3	18.9	56.5	0.34
2,812.0	0.12	309.98	2,809.8	-53.3	18.9	56.5	0.12
2,837.0	0.07	324.69	2,834.8	-53.2	18.8	56.4	0.22
2,862.0	0.07	335.39	2,859.8	-53.2	18.8	56.4	0.05
2,887.0	0.11	348.27	2,884.8	-53.2	18.8	56.4	0.18
2,912.0	0.14	343.67	2,909.8	-53.1	18.8	56.3	0.13
2,937.0	0.17	341.72	2,934.8	-53.1	18.8	56.2	0.12
2,962.0	0.19	348.60	2,959.8	-53.0	18.8	56.2	0.12
2,987.0	0.18	349.47	2,984.8	-52.9	18.7	56.1	0.04
3,012.0	0.18	348.05	3,009.8	-52.8	18.7	56.0	0.02
3,037.0	0.20	350.13	3,034.8	-52.7	18.7	55.9	0.08
3,062.0	0.21	344.66	3,059.8	-52.7	18.7	55.8	0.09
3,087.0	0.23	327.41	3,084.8	-52.6	18.7	55.7	0.28
3,112.0	0.22	313.84	3,109.8	-52.5	18.6	55.6	0.22
3,137.0	0.15	311.28	3,134.8	-52.4	18.5	55.6	0.28
3,162.0	0.16	314.20	3,159.8	-52.4	18.5	55.5	0.05
3,187.0	0.15	326.39	3,184.8	-52.3	18.4	55.5	0.14
3,212.0	0.13	347.47	3,209.8	-52.3	18.4	55.4	0.22
3,237.0	0.15	353.72	3,234.8	-52.2	18.4	55.3	0.10
3,262.0	0.17	1.12	3,259.8	-52.2	18.4	55.3	0.11
3,287.0	0.18	356.23	3,284.8	-52.1	18.4	55.2	0.07
3,312.0	0.20	342.58	3,309.8	-52.0	18.4	55.1	0.20
3,337.0	0.22	338.61	3,334.8	-51.9	18.4	55.0	0.10
3,362.0	0.20	341.09	3,359.8	-51.8	18.3	54.9	0.09
3,387.0	0.19	344.10	3,384.8	-51.8	18.3	54.8	0.06
3,412.0	0.18	344.62	3,409.8	-51.7	18.3	54.8	0.04
3,437.0	0.17	339.37	3,434.8	-51.6	18.3	54.7	0.08
3,462.0	0.18	338.65	3,459.8	-51.5	18.2	54.6	0.04
3,487.0	0.11	339.66	3,484.8	-51.5	18.2	54.5	0.28
3,512.0	0.09	351.85	3,509.8	-51.4	18.2	54.5	0.12
3,537.0	0.11	10.84	3,534.8	-51.4	18.2	54.5	0.15
3,562.0	0.11	32.50	3,559.8	-51.3	18.2	54.4	0.17
3,587.0	0.13	23.17	3,584.8	-51.3	18.2	54.4	0.11



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 WV GEOLOGICAL SURVEY  
 Morgantown, WV

EOW Completion Report



**Company:** Antero Resources  
**Project:** Doddridge County WV  
**Site:** Dufflemeyer Pad  
**Well:** Honey Unit 1H  
**Wellbore:** Original Wellpath  
**Design:** As Drilled

**Local Co-ordinate Reference:** Well Honey Unit 1H  
**TVD Reference:** Patt 347: Honey 1H 1081 GL + 25 KB @ 1106.0u:  
**MD Reference:** Patt 347: Honey 1H 1081 GL + 25 KB @ 1106.0u:  
**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)
3,612.0	0.13	19.24	3,609.8	-51.2	18.3	54.3	0.04
3,637.0	0.13	20.07	3,634.8	-51.2	18.3	54.3	0.01
3,662.0	0.14	12.26	3,659.8	-51.1	18.3	54.3	0.08
3,687.0	0.15	17.16	3,684.8	-51.1	18.3	54.2	0.06
3,712.0	0.14	14.60	3,709.8	-51.0	18.3	54.1	0.05
3,737.0	0.12	359.56	3,734.8	-51.0	18.3	54.1	0.16
3,762.0	0.12	344.19	3,759.8	-50.9	18.3	54.0	0.13
3,787.0	0.10	346.17	3,784.8	-50.9	18.3	54.0	0.08
3,812.0	0.05	356.56	3,809.8	-50.8	18.3	54.0	0.21
3,837.0	0.04	359.32	3,834.8	-50.8	18.3	53.9	0.04
3,862.0	0.05	16.31	3,859.8	-50.8	18.3	53.9	0.07
3,887.0	0.04	25.24	3,884.8	-50.8	18.3	53.9	0.05
3,912.0	0.03	78.06	3,909.8	-50.8	18.3	53.9	0.13
3,937.0	0.03	70.36	3,934.8	-50.8	18.3	53.9	0.02
3,962.0	0.05	21.09	3,959.8	-50.7	18.3	53.9	0.15
3,987.0	0.08	4.37	3,984.8	-50.7	18.4	53.9	0.14
4,012.0	0.09	25.12	4,009.8	-50.7	18.4	53.8	0.13
4,037.0	0.13	38.47	4,034.8	-50.6	18.4	53.8	0.19
4,062.0	0.15	8.47	4,059.8	-50.6	18.4	53.8	0.30
4,087.0	0.16	352.88	4,084.8	-50.5	18.4	53.7	0.17
4,112.0	0.13	349.83	4,109.8	-50.5	18.4	53.6	0.12
4,137.0	0.07	344.81	4,134.8	-50.4	18.4	53.6	0.24
4,162.0	0.04	359.58	4,159.8	-50.4	18.4	53.6	0.13
4,187.0	0.08	33.19	4,184.8	-50.4	18.4	53.6	0.21
4,212.0	0.11	52.93	4,209.8	-50.3	18.4	53.5	0.18
4,237.0	0.14	37.12	4,234.8	-50.3	18.5	53.5	0.18
4,262.0	0.18	12.56	4,259.8	-50.2	18.5	53.5	0.31
4,287.0	0.21	358.68	4,284.8	-50.2	18.5	53.4	0.22
4,312.0	0.22	1.49	4,309.8	-50.1	18.5	53.3	0.06
4,337.0	0.27	24.70	4,334.8	-50.0	18.5	53.2	0.44
4,362.0	0.37	18.23	4,359.8	-49.8	18.6	53.1	0.42
4,387.0	0.43	7.26	4,384.8	-49.7	18.6	52.9	0.39
4,412.0	0.40	7.23	4,409.8	-49.5	18.6	52.8	0.12
4,437.0	0.41	0.13	4,434.8	-49.3	18.6	52.6	0.20
4,462.0	0.38	5.11	4,459.8	-49.1	18.7	52.4	0.18
4,487.0	0.31	26.08	4,484.8	-49.0	18.7	52.3	0.57
4,512.0	0.34	10.27	4,509.8	-48.9	18.7	52.2	0.38
4,537.0	0.38	359.12	4,534.8	-48.7	18.7	52.1	0.32
4,562.0	0.32	1.20	4,559.8	-48.5	18.7	51.9	0.25
4,587.0	0.36	351.71	4,584.8	-48.4	18.7	51.8	0.28
4,612.0	0.39	348.52	4,609.8	-48.2	18.7	51.6	0.15
4,637.0	0.41	352.83	4,634.8	-48.1	18.7	51.4	0.14
4,662.0	0.42	357.37	4,659.8	-47.9	18.7	51.3	0.14
4,687.0	0.44	354.00	4,684.8	-47.7	18.6	51.1	0.13

JUL 20 2015



GEOLOGICAL SURVEY  
MORGANTOWN, WV

## EOW Completion Report



**Company:** Antero Resources  
**Project:** Doddridge County WV  
**Site:** Dufflemeyer Pad  
**Well:** Honey Unit 1H  
**Wellbore:** Original Wellpath  
**Design:** As Drilled

**Local Co-ordinate Reference:** Well Honey Unit 1H  
**TVD Reference:** Patt 347: Honey 1H 1081 GL + 25 KB @ 1106.0u:  
**MD Reference:** Patt 347: Honey 1H 1081 GL + 25 KB @ 1106.0u:  
**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)
4,712.0	0.49	349.79	4,709.8	-47.5	18.6	50.9	0.24
4,737.0	0.53	348.00	4,734.8	-47.3	18.6	50.7	0.17
4,762.0	0.54	345.74	4,759.8	-47.0	18.5	50.4	0.09
4,787.0	0.53	346.76	4,784.8	-46.8	18.5	50.2	0.06
4,812.0	0.52	353.59	4,809.8	-46.6	18.4	50.0	0.25
4,837.0	0.54	0.92	4,834.8	-46.4	18.4	49.7	0.28
4,862.0	0.55	5.64	4,859.8	-46.1	18.4	49.5	0.18
4,887.0	0.59	7.17	4,884.8	-45.9	18.5	49.3	0.17
4,912.0	0.65	2.75	4,909.8	-45.6	18.5	49.0	0.31
4,937.0	0.65	0.43	4,934.8	-45.3	18.5	48.8	0.11
4,962.0	0.61	359.20	4,959.8	-45.1	18.5	48.5	0.17
4,987.0	0.62	357.01	4,984.8	-44.8	18.5	48.2	0.10
5,012.0	0.60	1.66	5,009.8	-44.5	18.5	48.0	0.21
5,037.0	0.60	1.53	5,034.8	-44.3	18.5	47.7	0.01
5,062.0	0.64	0.92	5,059.8	-44.0	18.5	47.5	0.16
5,087.0	0.68	6.54	5,084.8	-43.7	18.5	47.2	0.30
5,112.0	0.71	5.34	5,109.8	-43.4	18.5	46.9	0.13
5,137.0	0.72	2.34	5,134.8	-43.1	18.6	46.6	0.15
5,162.0	0.72	1.71	5,159.8	-42.8	18.6	46.3	0.03
5,187.0	0.70	0.93	5,184.8	-42.5	18.6	46.1	0.09
5,212.0	0.70	357.89	5,209.8	-42.2	18.6	45.8	0.15
5,237.0	0.69	0.55	5,234.8	-41.9	18.6	45.5	0.14
5,262.0	0.73	3.81	5,259.8	-41.5	18.6	45.2	0.23
5,287.0	0.78	4.78	5,284.8	-41.2	18.6	44.9	0.21
5,312.0	0.76	8.76	5,309.8	-40.9	18.6	44.6	0.23
5,337.0	0.81	7.15	5,334.8	-40.5	18.7	44.3	0.22
5,362.0	0.86	3.64	5,359.8	-40.2	18.7	43.9	0.29
5,387.0	0.85	2.28	5,384.8	-39.8	18.7	43.6	0.09
5,412.0	0.86	1.64	5,409.8	-39.4	18.8	43.2	0.06
5,437.0	0.89	0.89	5,434.8	-39.1	18.8	42.9	0.13
5,462.0	0.87	2.48	5,459.8	-38.7	18.8	42.5	0.13
5,487.0	0.86	1.59	5,484.8	-38.3	18.8	42.1	0.07
5,512.0	0.87	356.71	5,509.8	-37.9	18.8	41.8	0.30
5,537.0	0.87	357.13	5,534.8	-37.5	18.8	41.4	0.03
5,562.0	0.84	0.80	5,559.8	-37.2	18.8	41.0	0.25
5,587.0	0.88	1.50	5,584.8	-36.8	18.8	40.7	0.17
5,612.0	0.90	5.32	5,609.8	-36.4	18.8	40.3	0.25
5,637.0	0.94	5.97	5,634.8	-36.0	18.8	40.0	0.17
5,662.0	0.98	3.08	5,659.8	-35.6	18.9	39.6	0.25
5,687.0	0.97	4.65	5,684.8	-35.2	18.9	39.2	0.11
5,712.0	1.01	1.80	5,709.8	-34.7	18.9	38.8	0.25
5,737.0	1.03	359.97	5,734.7	-34.3	18.9	38.3	0.15
5,762.0	1.00	0.02	5,759.7	-33.8	18.9	37.9	0.12
5,787.0	1.02	357.98	5,784.7	-33.4	18.9	37.5	0.16



JUL 20 2015



## EOW Completion Report



**Company:** Antero Resources  
**Project:** Doddridge County WV  
**Site:** Dufflemeyer Pad  
**Well:** Honey Unit 1H  
**Wellbore:** Original Wellpath  
**Design:** As Drilled

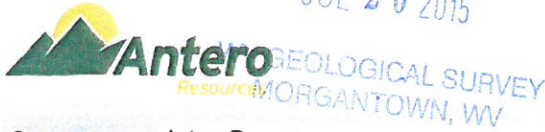
**Local Co-ordinate Reference:** Well Honey Unit 1H  
**TVD Reference:** Patt 347: Honey 1H 1081 GL + 25 KB @ 1106.0u:  
**MD Reference:** Patt 347: Honey 1H 1081 GL + 25 KB @ 1106.0u:  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** Oklahoma District

**Survey**

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
5,812.0	1.05	355.35	5,809.7	-33.0	18.9	37.1	0.22
5,837.0	1.00	359.42	5,834.7	-32.5	18.9	36.6	0.35
5,862.0	0.94	4.94	5,859.7	-32.1	18.9	36.2	0.44
5,887.0	0.97	5.68	5,884.7	-31.7	18.9	35.8	0.13
5,912.0	0.97	7.05	5,909.7	-31.2	19.0	35.5	0.09
5,937.0	0.93	6.48	5,934.7	-30.8	19.0	35.1	0.16
5,962.0	0.93	5.43	5,959.7	-30.4	19.1	34.7	0.07
5,987.0	0.91	7.21	5,984.7	-30.0	19.1	34.3	0.14
6,012.0	0.91	7.97	6,009.7	-29.6	19.2	34.0	0.05
6,037.0	0.91	7.71	6,034.7	-29.2	19.2	33.6	0.02
6,062.0	0.86	10.44	6,059.7	-28.9	19.3	33.3	0.26
6,087.0	0.77	13.44	6,084.7	-28.5	19.3	33.0	0.40
6,112.0	0.75	8.70	6,109.7	-28.2	19.4	32.7	0.26
6,137.0	0.72	2.99	6,134.7	-27.9	19.4	32.4	0.32
6,162.0	0.63	8.34	6,159.7	-27.6	19.5	32.1	0.44
6,187.0	0.68	19.09	6,184.7	-27.3	19.5	31.9	0.53
6,212.0	0.65	23.92	6,209.7	-27.0	19.6	31.6	0.25
6,237.0	0.63	27.24	6,234.7	-26.8	19.8	31.4	0.17
6,262.0	0.61	19.48	6,259.7	-26.5	19.9	31.2	0.34
6,287.0	0.59	16.52	6,284.7	-26.3	20.0	31.0	0.15
6,312.0	0.67	18.89	6,309.7	-26.0	20.0	30.8	0.34
6,337.0	0.71	16.72	6,334.7	-25.7	20.1	30.5	0.19
6,344.0	0.71	17.68	6,341.7	-25.7	20.2	30.5	0.17
6,419.0	0.62	35.81	6,416.7	-24.9	20.5	29.8	0.30
6,449.0	0.50	40.88	6,446.7	-24.7	20.7	29.7	0.43
6,479.0	0.65	53.23	6,476.7	-24.5	20.9	29.5	0.65
6,508.0	2.24	96.73	6,505.7	-24.4	21.6	29.7	6.29
6,539.0	6.00	106.11	6,536.6	-24.9	23.8	30.8	12.28
6,569.0	9.70	105.32	6,566.3	-26.0	27.7	33.1	12.34
6,599.0	12.73	104.66	6,595.7	-27.5	33.4	36.2	10.11
6,614.0	14.06	106.25	6,610.3	-28.5	36.7	38.0	9.17
<b>Sycamore</b>							
6,629.0	15.39	107.57	6,624.8	-29.6	40.4	40.2	9.17
6,659.0	18.48	109.65	6,653.5	-32.4	48.6	45.3	10.49
6,689.0	21.42	111.48	6,681.7	-36.0	58.2	51.6	10.02
6,719.0	23.67	111.98	6,709.4	-40.3	68.9	58.8	7.53
6,749.0	27.23	113.82	6,736.5	-45.3	80.8	67.1	12.15
6,779.0	30.11	115.66	6,762.8	-51.3	93.8	76.7	10.04
6,793.0	31.39	115.90	6,774.8	-54.4	100.3	81.6	9.21
<b>Middlesex</b>							
6,809.0	32.86	116.15	6,788.4	-58.2	107.9	87.4	9.21
6,839.0	36.18	116.57	6,813.1	-65.7	123.2	99.1	11.10
6,869.0	39.57	116.41	6,836.8	-73.9	139.6	111.8	11.30
6,899.0	43.75	116.87	6,859.2	-82.9	157.5	125.6	13.97
6,929.0	47.31	116.79	6,880.2	-92.5	176.6	140.5	11.87

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EOW Completion Report



Company: Antero Resources  
 Project: Doddridge County WV  
 Site: Dufflemeyer Pad  
 Well: Honey Unit 1H  
 Wellbore: Original Wellpath  
 Design: As Drilled

Local Co-ordinate Reference: Well Honey Unit 1H  
 TVD Reference: Patt 347: Honey 1H 1081 GL + 25 KB @ 1106.0u:  
 MD Reference: Patt 347: Honey 1H 1081 GL + 25 KB @ 1106.0u:  
 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)
6,959.0	51.30	116.98	6,899.8	-102.8	196.8	156.3	13.31
6,989.0	55.23	117.81	6,917.7	-113.9	218.2	173.1	13.29
7,019.0	59.28	119.73	6,933.9	-126.0	240.3	191.3	14.53
7,049.0	62.68	120.24	6,948.5	-139.1	263.0	210.5	11.43
<b>Tully</b>							
7,079.0	64.50	122.99	6,961.8	-153.2	285.9	230.7	10.21
7,109.0	65.74	126.99	6,974.5	-168.8	308.2	252.2	12.78
7,139.0	67.57	131.03	6,986.3	-186.2	329.6	275.1	13.79
7,169.0	68.40	134.51	6,997.6	-205.0	350.0	299.1	11.10
7,199.0	69.33	137.73	7,008.4	-225.2	369.4	324.1	10.48
7,229.0	69.87	142.33	7,018.9	-246.8	387.4	350.0	14.48
7,259.0	69.55	146.71	7,029.3	-269.7	403.7	376.7	13.74
7,289.0	69.32	150.56	7,039.8	-293.6	418.4	404.0	12.04
7,319.0	71.21	152.84	7,050.0	-318.5	431.7	431.7	9.53
7,336.0	72.41	154.62	7,055.3	-333.0	438.9	447.6	12.21
<b>Marcellus</b>							
7,349.0	73.34	155.97	7,059.1	-344.3	444.1	459.9	12.21
7,379.0	76.38	158.24	7,066.9	-370.9	455.3	488.7	12.49
7,409.0	80.05	160.26	7,073.1	-398.4	465.7	518.0	13.90
7,483.0	88.96	162.30	7,080.1	-468.1	489.3	591.6	12.35
7,600.0	90.60	163.32	7,080.6	-579.9	523.9	708.6	1.65
7,695.0	89.66	162.94	7,080.4	-670.8	551.5	803.6	1.07
7,785.0	89.03	162.48	7,081.4	-756.7	578.2	893.6	0.87
7,875.0	89.13	161.88	7,082.8	-842.4	605.8	983.5	0.68
7,967.0	89.03	162.55	7,084.3	-930.0	633.9	1,075.5	0.74
8,060.0	88.56	162.38	7,086.3	-1,018.6	661.9	1,168.5	0.54
8,152.0	88.12	162.58	7,088.9	-1,106.3	689.6	1,260.5	0.53
8,245.0	87.95	161.96	7,092.1	-1,194.8	717.9	1,353.4	0.69
8,337.0	89.66	165.22	7,094.0	-1,283.1	743.9	1,445.4	4.00
8,430.0	90.47	166.10	7,093.9	-1,373.2	766.9	1,538.2	1.29
8,522.0	91.58	166.43	7,092.3	-1,462.5	788.7	1,630.1	1.26
8,614.0	90.17	162.63	7,090.9	-1,551.2	813.3	1,722.0	4.41
8,706.0	90.13	161.98	7,090.6	-1,638.8	841.2	1,814.0	0.71
8,797.0	90.23	160.90	7,090.4	-1,725.1	870.2	1,905.0	1.19
8,891.0	90.03	159.06	7,090.1	-1,813.4	902.4	1,998.8	1.97
8,985.0	89.36	160.25	7,090.7	-1,901.5	935.0	2,092.7	1.45
9,079.0	89.30	162.45	7,091.7	-1,990.6	965.1	2,186.6	2.34
9,173.0	90.57	164.62	7,091.9	-2,080.7	991.7	2,280.6	2.67
9,268.0	90.44	164.52	7,091.0	-2,172.3	1,017.0	2,375.6	0.17
9,362.0	91.38	162.89	7,089.5	-2,262.5	1,043.4	2,469.6	2.00
9,456.0	91.68	161.38	7,087.0	-2,351.9	1,072.2	2,563.5	1.64
9,551.0	89.66	161.68	7,085.9	-2,442.0	1,102.3	2,658.5	2.15
9,645.0	89.70	163.63	7,086.4	-2,531.7	1,130.3	2,752.5	2.07
9,739.0	90.34	166.39	7,086.4	-2,622.5	1,154.6	2,846.4	3.01
9,833.0	92.28	164.45	7,084.2	-2,713.5	1,178.3	2,940.3	2.92



EOW Completion Report



Company: Antero Resources  
 Project: Doddridge County WV  
 Site: Dufflemeyer Pad  
 Well: Honey Unit 1H  
 Wellbore: Original Wellpath  
 Design: As Drilled

Local Co-ordinate Reference: Well Honey Unit 1H  
 TVD Reference: Patt 347: Honey 1H 1081 GL + 25 KB @ 1106.0u:  
 MD Reference: Patt 347: Honey 1H 1081 GL + 25 KB @ 1106.0u:  
 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)
9,927.0	90.81	161.76	7,081.7	-2,803.4	1,205.6	3,034.2	3.26
10,022.0	90.94	161.54	7,080.3	-2,893.5	1,235.5	3,129.2	0.27
10,115.0	89.36	161.54	7,080.0	-2,981.7	1,265.0	3,222.2	1.70
10,210.0	89.33	163.43	7,081.1	-3,072.3	1,293.5	3,317.1	1.99
10,304.0	90.74	164.21	7,081.0	-3,162.6	1,319.7	3,411.1	1.71
10,398.0	90.97	163.27	7,079.6	-3,252.8	1,346.0	3,505.1	1.03
10,492.0	91.58	160.78	7,077.6	-3,342.2	1,375.0	3,599.1	2.73
10,586.0	88.96	159.81	7,077.1	-3,430.7	1,406.7	3,693.0	2.97
10,680.0	87.99	158.51	7,079.6	-3,518.5	1,440.2	3,786.7	1.73
10,774.0	89.06	160.25	7,082.0	-3,606.5	1,473.3	3,880.5	2.17
10,868.0	89.46	161.69	7,083.2	-3,695.3	1,503.9	3,974.5	1.59
10,962.0	89.40	162.33	7,084.2	-3,784.7	1,532.9	4,068.4	0.68
11,056.0	90.03	163.49	7,084.6	-3,874.6	1,560.6	4,162.4	1.40
11,150.0	90.37	163.44	7,084.3	-3,964.7	1,587.3	4,256.4	0.37
11,244.0	89.36	163.81	7,084.5	-4,054.9	1,613.8	4,350.4	1.14
11,339.0	88.76	163.20	7,086.1	-4,145.9	1,640.8	4,445.4	0.90
11,432.0	88.69	164.86	7,088.2	-4,235.3	1,666.4	4,538.4	1.79
11,527.0	89.56	163.28	7,089.6	-4,326.7	1,692.4	4,633.3	1.90
11,621.0	89.77	162.52	7,090.2	-4,416.5	1,720.1	4,727.3	0.84
11,715.0	88.99	164.14	7,091.2	-4,506.5	1,747.0	4,821.3	1.91
11,809.0	89.23	164.21	7,092.6	-4,597.0	1,772.7	4,915.3	0.27
11,904.0	89.93	164.71	7,093.3	-4,688.5	1,798.1	5,010.2	0.91
11,998.0	90.34	168.84	7,093.1	-4,780.0	1,819.6	5,104.0	4.42
12,092.0	91.54	167.10	7,091.6	-4,871.9	1,839.2	5,197.6	2.25
12,186.0	92.08	163.10	7,088.6	-4,962.7	1,863.4	5,291.5	4.29
12,281.0	90.37	161.55	7,086.6	-5,053.2	1,892.2	5,386.4	2.43
12,374.0	90.60	160.50	7,085.8	-5,141.1	1,922.4	5,479.4	1.16
12,468.0	89.36	160.74	7,085.8	-5,229.8	1,953.6	5,573.3	1.34
12,562.0	89.36	160.60	7,086.9	-5,318.5	1,984.7	5,667.2	0.15
12,656.0	89.36	162.45	7,087.9	-5,407.6	2,014.5	5,761.2	1.97
12,750.0	89.56	162.26	7,088.8	-5,497.2	2,043.0	5,855.2	0.29
12,844.0	89.26	161.94	7,089.8	-5,586.6	2,071.9	5,949.2	0.47
12,938.0	89.13	161.86	7,091.1	-5,676.0	2,101.1	6,043.2	0.16
13,032.0	89.46	163.33	7,092.3	-5,765.7	2,129.2	6,137.1	1.60
13,127.0	89.19	162.09	7,093.4	-5,856.4	2,157.4	6,232.1	1.34
13,221.0	90.07	164.57	7,094.0	-5,946.4	2,184.4	6,326.1	2.80
13,315.0	90.64	164.24	7,093.4	-6,036.9	2,209.7	6,420.1	0.70
13,409.0	90.64	163.71	7,092.3	-6,127.3	2,235.6	6,514.1	0.56
13,503.0	90.40	162.81	7,091.5	-6,217.3	2,262.7	6,608.1	0.99
13,533.0	90.48	162.56	7,091.3	-6,245.9	2,271.6	6,638.1	0.87
13,591.0	90.48	162.56	7,090.8	-6,301.3	2,289.0	6,696.0	0.00



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**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** Oklahoma District

**Design Annotations**

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
6,614.0	6,610.3	-28.5	36.7	Sycamore
6,793.0	6,774.8	-54.4	100.3	Middlesex
7,049.0	6,948.5	-139.1	263.0	Tully
7,336.0	7,055.3	-333.0	438.9	Marcellus

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

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 MORGANTOWN, WV