

JUN 26 2015

WV GEOLOGICAL SURVEY  
MORGANTOWN, WV



**Antero Resources**  
Hornet Unit 1H  
Ritchie County WV  
Northing: 14245885.63  
Easting: 1667891.74  
As Drilled



Genie Lightfoot  
14.08, June 11 2014  
Scientific Drilling  
421 South Eagle Lane  
Oklahoma City, OK

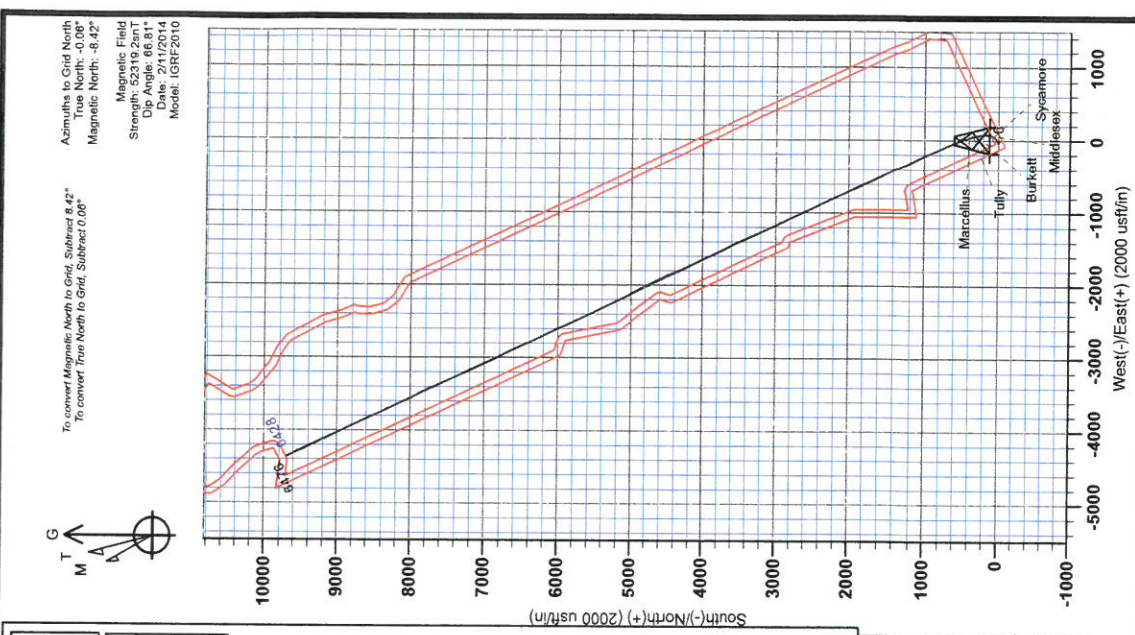
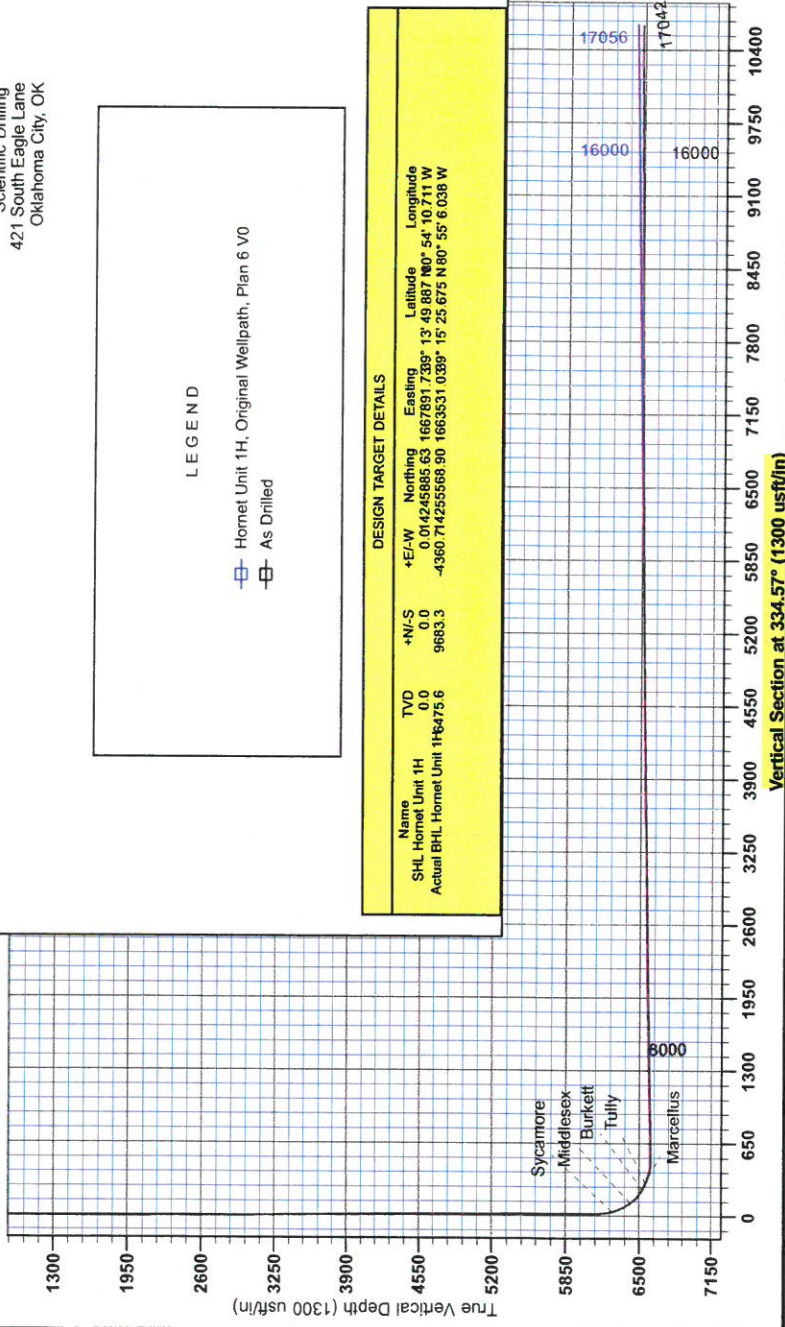
LEGEND  
 □ Hornet Unit 1H, Original Wellpath, Plan 6 V0  
 □ As Drilled

**WELL DETAILS: Hornet Unit 1H**  
 Ground Level: 1101.0  
 Slot  
 Easting 1067891.74    Northing 14245885.63    Longitude 80° 54' 10.711 W  
 Latitude 39° 13' 49.887 N

**PROJECT DETAILS: Ritchie County WV**  
 Geodetic 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 (WGS 84) Reference: Well Hornet Unit 1H, Grid North  
 Station (0.0N, 0.0E)    1011 + 19' NGS @ 1210.0usft  
 Station (0.0N, 0.0E)    1011 + 19' NGS @ 1210.0usft  
 Method: Calculation Method    Minimum Curvature

DESIGN TARGET DETAILS							
Name	TVD	+N/S	+E/W	Northing	Easting	Latitude	Longitude
SHL Hornet Unit 1H	0.0	0.0	0.0	14245885.63	1667891.74	39° 13' 49.887 N	80° 54' 10.711 W
Actual BHL Hornet Unit 1H	1164.756	9663.3	-4360.714255568	90	1663531.0389	15° 25' 67.5 N	80° 55' 6.038 W



To convert Magnetic North to Grid, Subtract 8.42°  
 True North: -0.00°  
 Magnetic North: -8.42°

Magnetic Field  
 Strength: 52319.2anT  
 Inclination: 66.11°  
 Date: 01/12/2014  
 Model: IGRF2010



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WV GEOLOGICAL SURVEY  
MORGANTOWN, WV

## **Antero Resources**

**Ritchie County WV  
Hornet/Myrtle Pad  
Hornet Unit 1H  
Original Wellpath**

**Design: As Drilled**

## **EOW Completion Report**

**11 June, 2014**



JUN 26 2015



EOW Completion Report



<b>Company:</b> Antero Resources	<b>Local Co-ordinate Reference:</b> Well Hornet Unit 1H
<b>Project:</b> Ritchie County WV	<b>TVD Reference:</b> Hornet Unit 1H GL 1191' + 19' RKB @ 1210.0usft
<b>Site:</b> Hornet/Myrtle Pad	<b>MD Reference:</b> Hornet Unit 1H GL 1191' + 19' RKB @ 1210.0usft
<b>Well:</b> Hornet 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>	Hornet/Myrtle Pad				
<b>Site Position:</b>		<b>Northing:</b>	14,245,885.63 usft	<b>Latitude:</b>	39° 13' 49.887 N
<b>From:</b>	Map	<b>Easting:</b>	1,667,891.74 usft	<b>Longitude:</b>	80° 54' 10.711 W
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	13-3/16"	<b>Grid Convergence:</b>	0.06 °

<b>Well</b>	Hornet Unit 1H, Marcellus					
<b>Well Position</b>	<b>+N/-S</b>	0.0 usft	<b>Northing:</b>	14,245,885.63 usft	<b>Latitude:</b>	39° 13' 49.887 N
	<b>+E/-W</b>	0.0 usft	<b>Easting:</b>	1,667,891.74 usft	<b>Longitude:</b>	80° 54' 10.711 W
<b>Position Uncertainty</b>		2.8 usft	<b>Wellhead Elevation:</b>	1,210.0 usft	<b>Ground Level:</b>	1,191.0 usft

<b>Wellbore</b>	Original Wellpath				
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2/11/2014	-8.36	66.81	52,319

<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	334.57	

<b>Survey Program</b>	Date 6/11/2014				
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
105.4	5,863.7	Survey #1 Def Gyro to KOP (Original Well	SDI Standard Keeper	Scientific Drilling Intl. Standard Wireline Keeper	
5,923.0	17,042.0	Survey #2 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
105.4	1.27	145.02	105.4	-1.0	0.7	-1.2	1.21
106.0	1.27	145.20	106.0	-1.0	0.7	-1.2	0.62
156.0	0.93	157.40	156.0	-1.8	1.1	-2.1	0.82
206.0	0.81	160.92	206.0	-2.5	1.4	-2.9	0.26
256.0	0.52	167.99	256.0	-3.1	1.6	-3.4	0.60
306.0	0.36	177.14	306.0	-3.4	1.6	-3.8	0.35
356.0	0.28	194.72	356.0	-3.7	1.6	-4.1	0.25
406.0	0.16	193.59	406.0	-3.9	1.6	-4.2	0.24
456.0	0.20	174.90	456.0	-4.1	1.6	-4.3	0.14
506.0	0.36	168.49	506.0	-4.3	1.6	-4.6	0.33

JUN 26 2015



WV GEOLOGICAL SURVEY  
MORGANTOWN, WV

## EOW Completion Report



**Company:** Antero Resources  
**Project:** Ritchie County WV  
**Site:** Hornet/Myrtle Pad  
**Well:** Hornet Unit 1H  
**Wellbore:** Original Wellpath  
**Design:** As Drilled

**Local Co-ordinate Reference:** Well Hornet Unit 1H  
**TVD Reference:** Hornet Unit 1H GL 1191' + 19' RKB @ 1210.0usft  
**MD Reference:** Hornet Unit 1H GL 1191' + 19' RKB @ 1210.0usft  
**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)
556.0	0.46	180.34	556.0	-4.7	1.6	-4.9	0.26
606.0	0.46	193.32	606.0	-5.0	1.6	-5.2	0.21
656.0	0.31	206.15	656.0	-5.4	1.5	-5.5	0.34
706.0	0.29	213.66	706.0	-5.6	1.3	-5.6	0.09
756.0	0.23	197.85	756.0	-5.8	1.2	-5.8	0.19
806.0	0.30	185.67	806.0	-6.0	1.2	-6.0	0.18
856.0	0.42	195.96	856.0	-6.3	1.1	-6.2	0.27
906.0	0.44	201.81	906.0	-6.7	1.0	-6.5	0.10
956.0	0.51	211.94	956.0	-7.0	0.8	-6.7	0.22
1,006.0	0.52	220.28	1,006.0	-7.4	0.6	-6.9	0.15
1,056.0	0.51	231.51	1,056.0	-7.7	0.2	-7.1	0.20
1,106.0	0.40	231.67	1,106.0	-8.0	-0.1	-7.2	0.22
1,156.0	0.29	206.07	1,156.0	-8.2	-0.3	-7.3	0.37
1,206.0	0.26	211.17	1,206.0	-8.4	-0.4	-7.4	0.08
1,256.0	0.41	208.60	1,256.0	-8.7	-0.5	-7.6	0.30
1,306.0	0.55	217.23	1,305.9	-9.0	-0.8	-7.8	0.31
1,356.0	0.51	232.61	1,355.9	-9.3	-1.1	-8.0	0.29
1,406.0	0.47	246.73	1,405.9	-9.5	-1.4	-8.0	0.25
1,456.0	0.33	232.64	1,455.9	-9.7	-1.7	-8.0	0.34
1,506.0	0.40	225.26	1,505.9	-9.9	-2.0	-8.1	0.17
1,556.0	0.57	246.22	1,555.9	-10.1	-2.3	-8.2	0.49
1,606.0	0.66	260.30	1,605.9	-10.3	-2.8	-8.1	0.35
1,656.0	0.43	257.56	1,655.9	-10.4	-3.3	-8.0	0.46
1,706.0	0.38	249.69	1,705.9	-10.5	-3.6	-7.9	0.15
1,756.0	0.40	236.90	1,755.9	-10.6	-4.0	-7.9	0.18
1,806.0	0.54	238.06	1,805.9	-10.9	-4.3	-8.0	0.28
1,856.0	0.65	244.16	1,855.9	-11.1	-4.8	-8.0	0.25
1,906.0	0.64	260.38	1,905.9	-11.3	-5.3	-7.9	0.36
1,956.0	0.58	260.45	1,955.9	-11.4	-5.8	-7.8	0.12
2,006.0	0.49	257.19	2,005.9	-11.5	-6.3	-7.7	0.19
2,056.0	0.35	245.37	2,055.9	-11.6	-6.6	-7.6	0.33
2,106.0	0.45	226.66	2,105.9	-11.8	-6.9	-7.7	0.33
2,156.0	0.54	236.88	2,155.9	-12.0	-7.2	-7.8	0.25
2,206.0	0.58	243.70	2,205.9	-12.3	-7.7	-7.8	0.16
2,256.0	0.54	248.13	2,255.9	-12.5	-8.1	-7.8	0.12
2,306.0	0.57	255.33	2,305.9	-12.6	-8.6	-7.7	0.15
2,356.0	0.46	265.25	2,355.9	-12.7	-9.0	-7.6	0.28
2,406.0	0.35	256.64	2,405.9	-12.7	-9.4	-7.5	0.25
2,456.0	0.35	248.68	2,455.9	-12.8	-9.6	-7.5	0.10
2,506.0	0.46	247.76	2,505.9	-13.0	-10.0	-7.4	0.22
2,556.0	0.55	250.03	2,555.9	-13.1	-10.4	-7.4	0.18
2,606.0	0.62	267.41	2,605.9	-13.2	-10.9	-7.3	0.38
2,656.0	0.54	268.28	2,655.9	-13.2	-11.4	-7.1	0.16
2,706.0	0.61	277.61	2,705.9	-13.2	-11.9	-6.8	0.23

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EOW Completion Report



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**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)
2,756.0	0.58	285.60	2,755.9	-13.1	-12.4	-6.5	0.18
2,806.0	0.53	281.53	2,805.9	-13.0	-12.9	-6.2	0.13
2,856.0	0.54	269.62	2,855.9	-13.0	-13.3	-6.0	0.22
2,906.0	0.83	275.49	2,905.9	-12.9	-13.9	-5.7	0.60
2,956.0	0.90	280.73	2,955.9	-12.8	-14.7	-5.3	0.21
3,006.0	0.95	285.17	3,005.9	-12.6	-15.5	-4.8	0.17
3,056.0	0.98	284.94	3,055.9	-12.4	-16.3	-4.2	0.06
3,106.0	0.96	301.31	3,105.9	-12.1	-17.0	-3.6	0.55
3,156.0	1.03	298.11	3,155.9	-11.7	-17.8	-2.9	0.18
3,206.0	1.04	305.24	3,205.8	-11.2	-18.6	-2.1	0.26
3,256.0	1.01	306.81	3,255.8	-10.7	-19.3	-1.3	0.08
3,306.0	0.98	310.75	3,305.8	-10.1	-20.0	-0.6	0.15
3,356.0	1.01	315.40	3,355.8	-9.5	-20.6	0.2	0.17
3,406.0	0.93	314.90	3,405.8	-8.9	-21.2	1.0	0.16
3,456.0	0.96	315.72	3,455.8	-8.3	-21.8	1.8	0.07
3,506.0	0.92	310.41	3,505.8	-7.8	-22.4	2.6	0.19
3,556.0	0.94	313.19	3,555.8	-7.2	-23.0	3.3	0.10
3,606.0	0.81	313.85	3,605.8	-6.7	-23.5	4.0	0.26
3,656.0	0.86	312.55	3,655.8	-6.2	-24.1	4.7	0.11
3,706.0	0.83	309.32	3,705.8	-5.7	-24.6	5.4	0.11
3,756.0	0.81	307.08	3,755.8	-5.3	-25.2	6.0	0.08
3,806.0	0.73	301.14	3,805.8	-4.9	-25.7	6.6	0.23
3,856.0	0.68	310.43	3,855.8	-4.5	-26.2	7.2	0.25
3,906.0	0.69	311.56	3,905.8	-4.2	-26.7	7.7	0.03
3,956.0	0.67	301.72	3,955.8	-3.8	-27.2	8.2	0.24
4,006.0	0.69	308.58	4,005.8	-3.5	-27.6	8.7	0.17
4,056.0	0.69	304.92	4,055.7	-3.1	-28.1	9.3	0.09
4,106.0	0.69	303.39	4,105.7	-2.8	-28.6	9.8	0.04
4,156.0	0.68	308.10	4,155.7	-2.4	-29.1	10.3	0.11
4,206.0	0.65	314.30	4,205.7	-2.0	-29.5	10.9	0.16
4,256.0	0.68	321.53	4,255.7	-1.6	-29.9	11.4	0.18
4,306.0	0.80	319.11	4,305.7	-1.1	-30.3	12.0	0.25
4,356.0	0.80	316.81	4,355.7	-0.6	-30.8	12.7	0.06
4,406.0	0.64	307.70	4,405.7	-0.2	-31.3	13.3	0.39
4,456.0	0.47	307.51	4,455.7	0.1	-31.6	13.7	0.34
4,506.0	0.28	318.99	4,505.7	0.4	-31.9	14.0	0.41
4,556.0	0.27	346.37	4,555.7	0.6	-32.0	14.2	0.26
4,606.0	0.09	25.87	4,605.7	0.7	-32.0	14.4	0.42
4,656.0	0.21	331.73	4,655.7	0.8	-32.0	14.5	0.35
4,706.0	0.16	342.07	4,705.7	1.0	-32.1	14.7	0.12
4,756.0	0.14	338.82	4,755.7	1.1	-32.1	14.8	0.04
4,806.0	0.19	322.97	4,805.7	1.2	-32.2	14.9	0.13
4,856.0	0.20	340.15	4,855.7	1.4	-32.3	15.1	0.12
4,906.0	0.25	332.43	4,905.7	1.5	-32.4	15.3	0.12
4,956.0	0.28	346.89	4,955.7	1.8	-32.5	15.5	0.15

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## EOW Completion Report



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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)
5,006.0	0.28	351.26	5,005.7	2.0	-32.5	15.8	0.04
5,056.0	0.37	359.00	5,055.7	2.3	-32.5	16.0	0.20
5,106.0	0.28	16.04	5,105.7	2.6	-32.5	16.3	0.26
5,156.0	0.30	26.01	5,155.7	2.8	-32.4	16.4	0.11
5,206.0	0.15	12.27	5,205.7	3.0	-32.3	16.6	0.32
5,256.0	0.09	338.92	5,255.7	3.1	-32.3	16.7	0.18
5,306.0	0.16	335.79	5,305.7	3.2	-32.4	16.8	0.14
5,356.0	0.32	327.44	5,355.7	3.4	-32.5	17.0	0.33
5,406.0	0.44	314.57	5,405.7	3.6	-32.7	17.3	0.29
5,456.0	0.53	329.69	5,455.7	3.9	-32.9	17.7	0.31
5,506.0	0.46	354.15	5,505.7	4.3	-33.1	18.1	0.44
5,556.0	0.25	0.54	5,555.7	4.7	-33.1	18.4	0.43
5,606.0	0.37	301.97	5,605.7	4.9	-33.2	18.7	0.64
5,656.0	0.39	342.48	5,655.7	5.1	-33.4	19.0	0.53
5,706.0	0.44	49.14	5,705.7	5.4	-33.3	19.2	0.92
5,756.0	0.40	82.09	5,755.7	5.5	-33.0	19.2	0.48
5,806.0	0.39	95.00	5,805.7	5.5	-32.7	19.0	0.18
5,856.0	0.56	74.11	5,855.7	5.6	-32.3	18.9	0.48
5,863.7	0.35	26.86	5,863.4	5.6	-32.2	18.9	5.35
5,923.0	0.39	95.95	5,922.7	5.8	-31.9	18.9	0.71
5,968.0	4.85	71.72	5,967.6	6.4	-30.0	18.6	9.99
6,012.0	10.42	66.70	6,011.2	8.5	-24.5	18.2	12.74
6,057.0	15.94	61.82	6,055.0	13.0	-15.4	18.4	12.50
6,102.0	20.07	61.89	6,097.8	19.6	-3.1	19.0	9.18
6,147.0	24.37	63.02	6,139.5	27.5	12.0	19.6	9.60
6,192.0	24.84	57.24	6,180.4	36.8	28.2	21.1	5.45
6,237.0	25.73	42.35	6,221.1	49.1	42.8	26.0	14.24
6,282.0	27.22	29.97	6,261.4	65.3	54.5	35.6	12.68
6,284.0	27.26	29.43	6,263.2	66.1	54.9	36.1	12.62
<b>Sycamore</b>							
6,326.0	28.58	18.45	6,300.3	84.0	62.9	48.9	12.62
6,371.0	31.40	11.96	6,339.3	105.7	68.7	65.9	9.54
6,416.0	34.68	7.34	6,377.0	129.9	72.8	86.0	9.19
6,461.0	38.56	3.14	6,413.2	156.6	75.2	109.1	10.26
6,471.0	39.54	2.18	6,420.9	162.9	75.5	114.7	11.49
<b>Middlesex</b>							
6,506.0	43.01	359.11	6,447.2	185.9	75.7	135.4	11.49
6,551.0	48.56	355.44	6,478.6	218.1	74.1	165.2	13.64
6,595.0	54.68	351.09	6,505.9	252.4	70.0	197.8	15.92
6,638.0	60.22	347.64	6,529.1	287.9	63.3	232.9	14.55
<b>Burkett</b>							
6,640.0	60.48	347.49	6,530.0	289.6	62.9	234.6	14.55
6,685.0	64.38	345.70	6,550.9	328.4	53.7	273.6	9.36
6,702.0	66.20	345.15	6,558.0	343.4	49.8	288.7	11.07
<b>Tully</b>							

JUN 26 2015



EOW Completion Report



<b>Company:</b>	Antero Resources	<b>Local Co-ordinate Reference:</b>	Well Hornet Unit 1H
<b>Project:</b>	Ritchie County WV	<b>TVD Reference:</b>	Hornet Unit 1H GL 1191' + 19' RKB @ 1210.0usft
<b>Site:</b>	Hornet/Myrtle Pad	<b>MD Reference:</b>	Hornet Unit 1H GL 1191' + 19' RKB @ 1210.0usft
<b>Well:</b>	Hornet 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)
6,730.0	69.19	344.28	6,568.6	368.4	43.0	314.2	11.07
6,764.0	72.56	342.68	6,579.7	399.2	33.8	346.0	10.85
<b>Marcellus</b>							
6,775.0	73.65	342.18	6,582.9	409.2	30.6	356.4	10.85
6,820.0	78.66	341.08	6,593.7	450.6	16.9	399.7	11.38
6,865.0	85.53	339.71	6,599.9	492.6	1.9	444.0	15.56
6,910.0	90.13	337.79	6,601.6	534.5	-14.4	488.9	11.08
6,981.0	91.71	335.40	6,600.4	599.6	-42.6	559.8	4.03
7,070.0	91.28	335.75	6,598.1	680.6	-79.4	648.8	0.62
7,160.0	90.40	335.66	6,596.8	762.7	-116.4	738.7	0.98
7,250.0	90.57	335.93	6,596.0	844.7	-153.3	828.7	0.35
7,340.0	90.66	335.66	6,595.1	926.8	-190.2	918.7	0.32
7,430.0	91.36	335.66	6,593.5	1,008.8	-227.3	1,008.7	0.78
7,519.0	91.71	335.93	6,591.1	1,090.0	-263.7	1,097.6	0.50
7,609.0	91.80	334.87	6,588.4	1,171.8	-301.2	1,187.6	1.18
7,699.0	91.63	332.67	6,585.7	1,252.4	-340.9	1,277.5	2.45
7,788.0	91.71	332.41	6,583.1	1,331.4	-382.0	1,366.4	0.31
7,878.0	91.01	333.73	6,580.9	1,411.6	-422.7	1,456.4	1.66
7,968.0	90.84	333.29	6,579.5	1,492.1	-462.9	1,546.3	0.52
8,058.0	90.92	334.87	6,578.1	1,573.1	-502.2	1,636.3	1.76
8,147.0	91.28	333.99	6,576.4	1,653.3	-540.6	1,725.3	1.07
8,237.0	91.10	332.76	6,574.5	1,733.8	-580.9	1,815.2	1.38
8,327.0	90.84	334.52	6,573.0	1,814.4	-620.9	1,905.2	1.98
8,417.0	91.19	336.01	6,571.4	1,896.1	-658.5	1,995.2	1.70
8,506.0	90.92	335.93	6,569.8	1,977.4	-694.8	2,084.2	0.32
8,596.0	91.54	336.72	6,567.8	2,059.8	-730.9	2,174.1	1.12
8,686.0	91.28	335.75	6,565.6	2,142.2	-767.1	2,264.0	1.12
8,775.0	90.22	335.05	6,564.4	2,223.1	-804.2	2,353.0	1.43
8,865.0	90.22	334.26	6,564.1	2,304.4	-842.7	2,443.0	0.88
8,955.0	90.04	333.47	6,563.9	2,385.2	-882.4	2,533.0	0.90
9,044.0	91.01	333.55	6,563.1	2,464.9	-922.1	2,622.0	1.09
9,134.0	90.92	333.73	6,561.6	2,545.5	-962.0	2,712.0	0.22
9,224.0	90.66	333.64	6,560.3	2,626.2	-1,001.9	2,801.9	0.31
9,313.0	91.01	334.78	6,559.0	2,706.3	-1,040.6	2,890.9	1.34
9,403.0	90.66	335.66	6,557.7	2,788.0	-1,078.3	2,980.9	1.05
9,493.0	91.01	335.57	6,556.4	2,869.9	-1,115.5	3,070.9	0.40
9,583.0	90.84	334.87	6,555.0	2,951.6	-1,153.2	3,160.9	0.80
9,672.0	90.04	333.73	6,554.3	3,031.8	-1,191.8	3,249.9	1.56
9,762.0	91.01	334.17	6,553.4	3,112.7	-1,231.3	3,339.8	1.18
9,852.0	91.89	335.31	6,551.2	3,194.1	-1,269.7	3,429.8	1.60
9,941.0	91.71	335.31	6,548.4	3,274.9	-1,306.9	3,518.8	0.20
10,031.0	91.63	336.28	6,545.7	3,356.9	-1,343.8	3,608.7	1.08
10,120.0	90.92	335.66	6,543.8	3,438.2	-1,380.0	3,697.7	1.06
10,210.0	90.84	336.01	6,542.4	3,520.3	-1,416.8	3,787.6	0.40
10,300.0	90.84	335.49	6,541.1	3,602.4	-1,453.8	3,877.6	0.58



**Company:** Antero Resources  
**Project:** Ritchie County WV  
**Site:** Hornet/Myrtle Pad  
**Well:** Hornet Unit 1H  
**Wellbore:** Original Wellpath  
**Design:** As Drilled

**Local Co-ordinate Reference:** Well Hornet Unit 1H  
**TVD Reference:** Hornet Unit 1H GL 1191' + 19' RKB @ 1210.0usft  
**MD Reference:** Hornet Unit 1H GL 1191' + 19' RKB @ 1210.0usft  
**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)
10,390.0	90.84	333.38	6,539.7	3,683.5	-1,492.6	3,967.6	2.34
10,480.0	89.96	333.03	6,539.1	3,763.9	-1,533.2	4,057.5	1.05
10,569.0	91.63	334.26	6,537.9	3,843.6	-1,572.7	4,146.5	2.33
10,659.0	91.01	334.26	6,535.8	3,924.6	-1,611.8	4,236.5	0.69
10,749.0	90.31	334.43	6,534.8	4,005.8	-1,650.7	4,326.5	0.80
10,838.0	91.36	334.70	6,533.5	4,086.1	-1,689.0	4,415.5	1.22
10,928.0	90.66	335.40	6,531.9	4,167.7	-1,726.9	4,505.5	1.10
11,021.0	91.01	336.01	6,530.5	4,252.5	-1,765.2	4,598.4	0.76
11,115.0	90.22	336.63	6,529.5	4,338.6	-1,802.9	4,692.4	1.07
11,208.0	91.01	336.19	6,528.5	4,423.8	-1,840.1	4,785.3	0.97
11,302.0	90.31	336.72	6,527.4	4,509.9	-1,877.7	4,879.3	0.93
11,396.0	89.69	334.87	6,527.4	4,595.7	-1,916.2	4,973.2	2.08
11,490.0	90.84	332.94	6,527.0	4,680.1	-1,957.6	5,067.2	2.39
11,583.0	90.48	333.20	6,525.9	4,763.0	-1,999.7	5,160.2	0.48
11,676.0	91.10	333.20	6,524.7	4,846.0	-2,041.6	5,253.2	0.67
11,769.0	90.84	333.03	6,523.1	4,928.9	-2,083.7	5,346.1	0.33
11,862.0	90.66	332.76	6,521.9	5,011.7	-2,126.0	5,439.1	0.35
11,956.0	90.22	333.29	6,521.1	5,095.5	-2,168.7	5,533.0	0.73
12,050.0	91.28	333.90	6,519.9	5,179.7	-2,210.5	5,627.0	1.30
12,139.0	91.28	334.08	6,517.9	5,259.6	-2,249.5	5,716.0	0.20
12,229.0	90.40	333.03	6,516.6	5,340.2	-2,289.6	5,806.0	1.52
12,319.0	89.87	332.32	6,516.4	5,420.2	-2,330.9	5,895.9	0.98
12,408.0	91.19	334.61	6,515.6	5,499.8	-2,370.6	5,984.9	2.97
12,498.0	91.45	334.34	6,513.5	5,581.0	-2,409.4	6,074.8	0.42
12,588.0	90.75	335.40	6,511.8	5,662.4	-2,447.6	6,164.8	1.41
12,677.0	89.52	335.40	6,511.6	5,743.4	-2,484.7	6,253.8	1.38
12,767.0	90.92	335.84	6,511.2	5,825.3	-2,521.8	6,343.8	1.63
12,857.0	91.63	335.49	6,509.2	5,907.3	-2,558.9	6,433.8	0.88
12,946.0	90.13	334.43	6,507.8	5,987.9	-2,596.6	6,522.7	2.06
13,036.0	90.13	334.70	6,507.6	6,069.2	-2,635.2	6,612.7	0.30
13,126.0	90.40	334.26	6,507.2	6,150.4	-2,674.0	6,702.7	0.57
13,215.0	90.13	334.26	6,506.8	6,230.6	-2,712.6	6,791.7	0.30
13,305.0	90.92	334.61	6,506.0	6,311.8	-2,751.5	6,881.7	0.96
13,395.0	91.01	335.49	6,504.5	6,393.4	-2,789.4	6,971.7	0.98
13,484.0	90.22	335.40	6,503.5	6,474.3	-2,826.4	7,060.7	0.89
13,574.0	90.13	336.81	6,503.2	6,556.6	-2,862.9	7,150.7	1.57
13,664.0	90.31	334.96	6,502.9	6,638.7	-2,899.6	7,240.6	2.07
13,754.0	90.40	333.73	6,502.3	6,719.9	-2,938.6	7,330.6	1.37
13,843.0	89.78	329.42	6,502.2	6,798.1	-2,981.0	7,419.5	4.89
13,933.0	90.13	331.71	6,502.3	6,876.5	-3,025.2	7,509.3	2.57
14,023.0	90.92	334.61	6,501.4	6,956.8	-3,065.8	7,599.2	3.34
14,112.0	90.66	333.38	6,500.2	7,036.8	-3,104.8	7,688.2	1.41
14,202.0	91.01	335.75	6,498.9	7,118.0	-3,143.5	7,778.2	2.66
14,292.0	90.92	335.40	6,497.4	7,200.0	-3,180.7	7,868.2	0.40



JUN 26 2015



WV GEOLOGICAL SURVEY  
MORGANTOWN, WV

## EOW Completion Report



**Company:** Antero Resources  
**Project:** Ritchie County WV  
**Site:** Hornet/Myrtle Pad  
**Well:** Hornet Unit 1H  
**Wellbore:** Original Wellpath  
**Design:** As Drilled

**Local Co-ordinate Reference:** Well Hornet Unit 1H  
**TVD Reference:** Hornet Unit 1H GL 1191' + 19' RKB @ 1210.0usft  
**MD Reference:** Hornet Unit 1H GL 1191' + 19' RKB @ 1210.0usft  
**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)
14,381.0	90.40	335.93	6,496.4	7,281.0	-3,217.4	7,957.1	0.83
14,471.0	90.31	336.28	6,495.8	7,363.3	-3,253.8	8,047.1	0.40
14,561.0	90.57	336.01	6,495.1	7,445.6	-3,290.2	8,137.1	0.42
14,651.0	90.22	336.54	6,494.5	7,528.0	-3,326.4	8,227.0	0.71
14,740.0	90.84	334.34	6,493.7	7,609.0	-3,363.4	8,316.0	2.57
14,830.0	90.92	333.90	6,492.3	7,689.9	-3,402.7	8,406.0	0.50
14,920.0	90.48	333.82	6,491.2	7,770.7	-3,442.3	8,496.0	0.50
15,010.0	89.69	333.38	6,491.1	7,851.3	-3,482.3	8,586.0	1.00
15,099.0	90.66	333.03	6,490.8	7,930.8	-3,522.5	8,674.9	1.16
15,189.0	90.48	334.61	6,489.9	8,011.5	-3,562.2	8,764.9	1.77
15,279.0	90.13	334.61	6,489.4	8,092.8	-3,600.8	8,854.9	0.39
15,369.0	90.22	334.70	6,489.1	8,174.2	-3,639.3	8,944.9	0.14
15,458.0	91.36	333.99	6,487.9	8,254.4	-3,677.8	9,033.9	1.51
15,548.0	90.31	333.55	6,486.6	8,335.1	-3,717.6	9,123.9	1.26
15,638.0	90.31	334.43	6,486.1	8,416.0	-3,757.1	9,213.9	0.98
15,727.0	91.19	335.05	6,484.9	8,496.5	-3,795.0	9,302.9	1.21
15,817.0	90.75	334.87	6,483.4	8,578.0	-3,833.1	9,392.9	0.53
15,907.0	90.40	335.14	6,482.5	8,659.6	-3,871.1	9,482.9	0.49
15,997.0	90.40	335.95	6,481.9	8,741.5	-3,908.4	9,572.8	0.90
16,086.0	90.57	335.31	6,481.1	8,822.6	-3,945.1	9,661.8	0.74
16,176.0	90.31	334.61	6,480.4	8,904.1	-3,983.2	9,751.8	0.83
16,266.0	90.57	333.55	6,479.8	8,985.0	-4,022.6	9,841.8	1.21
16,355.0	89.25	331.97	6,479.9	9,064.2	-4,063.3	9,930.8	2.31
16,445.0	89.69	333.11	6,480.7	9,144.0	-4,104.8	10,020.7	1.36
16,535.0	90.92	333.99	6,480.2	9,224.6	-4,144.9	10,110.7	1.68
16,625.0	91.63	333.82	6,478.2	9,305.4	-4,184.4	10,200.6	0.81
16,714.0	90.75	334.52	6,476.4	9,385.5	-4,223.2	10,289.6	1.26
16,804.0	90.40	335.84	6,475.5	9,467.2	-4,261.0	10,379.6	1.52
16,894.0	89.87	335.75	6,475.3	9,549.3	-4,297.9	10,469.6	0.60
16,982.0	89.87	334.52	6,475.5	9,629.1	-4,334.9	10,557.6	1.40
17,042.0	89.87	334.52	6,475.6	9,683.3	-4,360.7	10,617.6	0.00

### Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
6,284.0	6,263.2	66.1	54.9	Sycamore
6,471.0	6,420.9	162.9	75.5	Middlesex
6,638.0	6,529.1	287.9	63.3	Burkett
6,702.0	6,558.0	343.4	49.8	Tully
6,764.0	6,579.7	399.2	33.8	Marcellus

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