



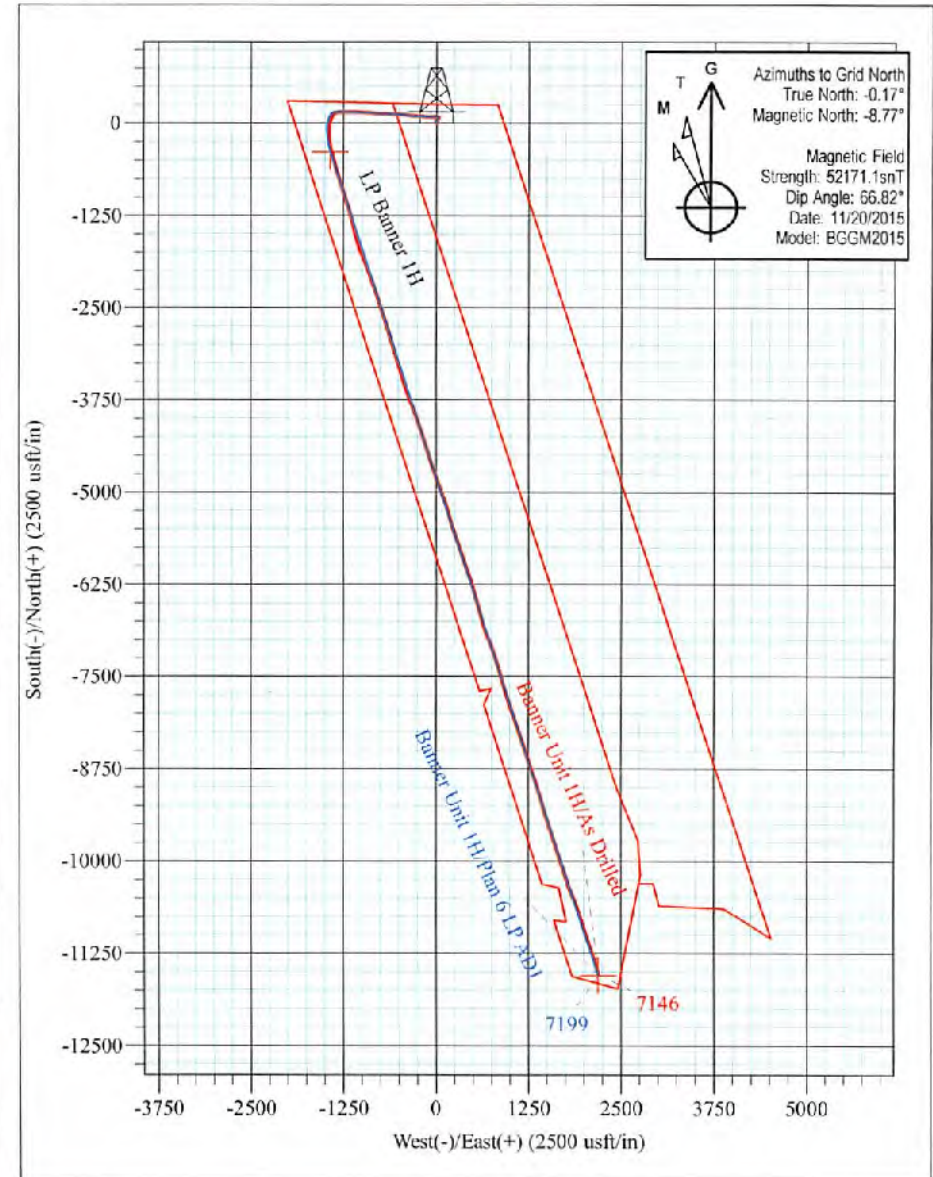
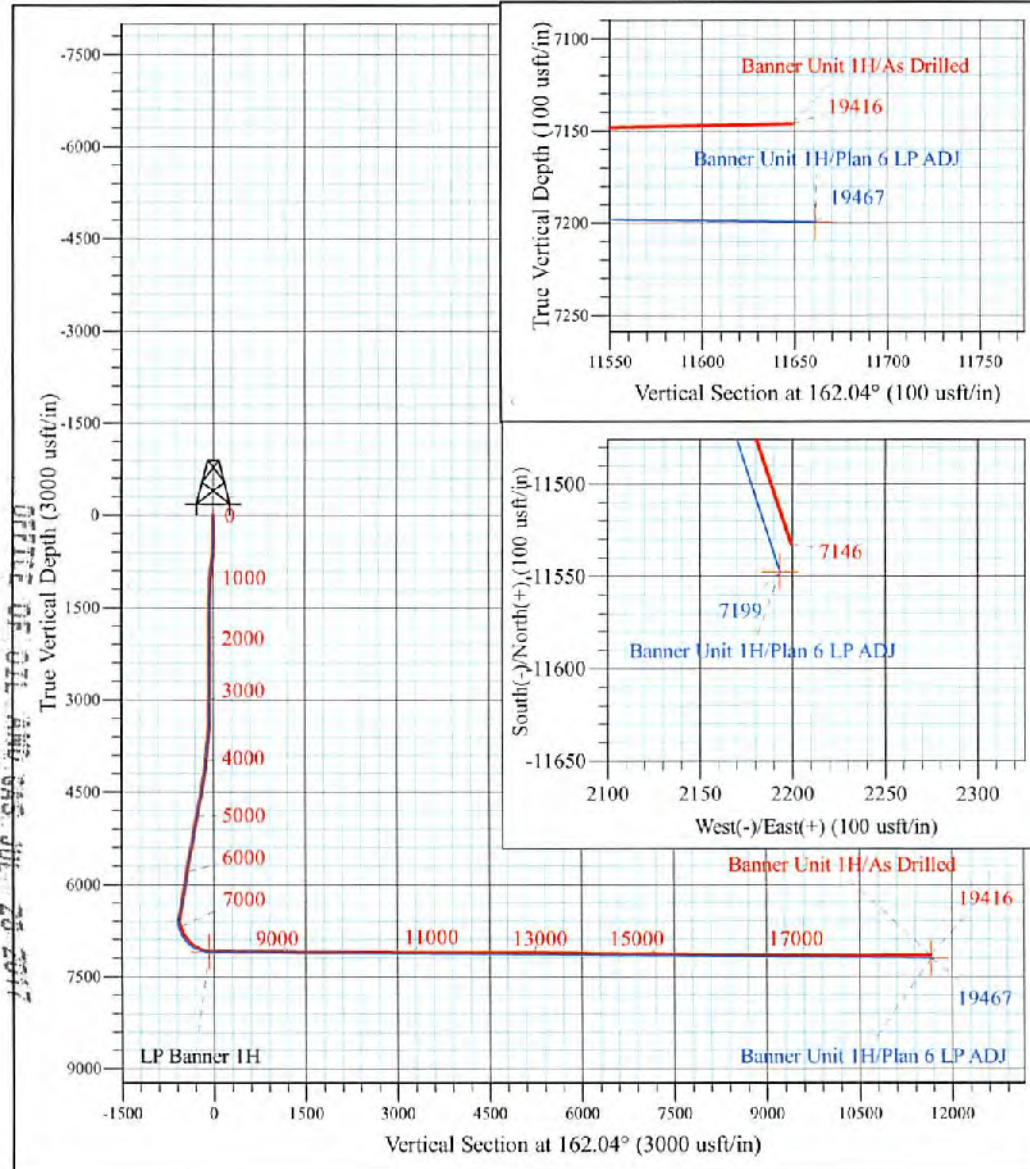
Coastal 2 Pad: Banner/Prudence/Tabor
 Banner Unit 1H
 Plan 6 LP ADJ
 Precision 525: GL 1188' + KB 19' @ 1207.0usft
 Tyler County WV

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



WELL DETAILS: **Banner Unit 1H SHL**

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	14318150.53	1717756.08	39° 25' 43.400 N	80° 43' 34.011 W



Banner Unit 1H
Approx. BHL
 39° 23' 49.308 N 80° 43' 06.430 W

Shane Rhodes
 9:05, December 18 2015
 Scientific Drilling International
 124 Vista Drive
 Charleroi, PA 15022

OFFICE OF OIL AND GAS REGULATION



Company:	Antero Resources	Local Co-ordinate Reference:	Well Banner Unit 1H
Project:	Tyler County WV	TVD Reference:	Precision 525: GL 1188' + KB 19' @ 1207.0usft
Site:	Coastal 2 Pad: Banner/Prudence/Tabor	MD Reference:	Precision 525: GL 1188' + KB 19' @ 1207.0usft
Well:	Banner Unit 1H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Antero NE

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

Site	Coastal 2 Pad: Banner/Prudence/Tabor				
Site Position:		Northing:	14,318,150.53 usft	Latitude:	39° 25' 43.400 N
From:	Map	Easting:	1,717,756.08 usft	Longitude:	80° 43' 34.011 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.17 °

Well	Banner Unit 1H, Marcellus					
Well Position	+N/-S	0.0 usft	Northing:	14,318,150.53 usft	Latitude:	39° 25' 43.400 N
	+E/-W	0.0 usft	Easting:	1,717,756.08 usft	Longitude:	80° 43' 34.011 W
Position Uncertainty	2.0 usft		Wellhead Elevation:	1,207.0 usft	Ground Level:	1,188.0 usft

Wellbore	Original Wellpath				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2015	7/14/2015	-8.58	66.85	52,212
	BGGM2015	11/20/2015	-8.59	66.82	52,171

Design	As Drilled				
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	162.04	

Survey Program	Date 12/18/2015			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
25.0	6,800.4	Survey #4 Final Gyro (Original Wellpath)	Standard Keeper 104	Standard Wireline Keeper ver 1.0.4
6,817.0	19,418.0	Survey #5 SDI MWD (Original Wellpath)	SDI MWD	Scientific Drilling Intl. MWD - Standard ver 1.0.1

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
25.0	0.03	205.69	25.0	0.0	0.0	0.0	0.12	0.12	0.00	
First SDI Gyro @ 25 MD										
50.0	0.06	205.69	50.0	0.0	0.0	0.0	0.12	0.12	0.00	
75.0	0.09	205.69	75.0	-0.1	0.0	0.0	0.12	0.12	0.00	
100.0	0.14	227.56	100.0	-0.1	-0.1	0.1	0.26	0.20	87.48	
125.0	0.24	248.87	125.0	-0.1	-0.1	0.1	0.48	0.40	85.24	
150.0	0.15	241.86	150.0	-0.2	-0.2	0.1	0.37	-0.36	-28.04	



Scientific Drilling International
Survey Report



Company:	Antero Resources	Local Co-ordinate Reference:	Well Banner Unit 1H
Project:	Tyler County WV	TVD Reference:	Precision 525: GL 1188' + KB 19' @ 1207.0usft
Site:	Coastal 2 Pad: Banner/Prudence/Tabor	MD Reference:	Precision 525: GL 1188' + KB 19' @ 1207.0usft
Well:	Banner Unit 1H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Antero NE

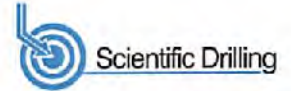
Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
175.0	0.11	208.59	175.0	-0.2	-0.2	0.1	0.33	-0.16	-133.08
200.0	0.12	214.66	200.0	-0.2	-0.3	0.1	0.06	0.04	24.28
225.0	0.12	169.39	225.0	-0.3	-0.3	0.2	0.37	0.00	-181.08
250.0	0.19	152.53	250.0	-0.4	-0.3	0.3	0.33	0.28	-67.44
275.0	0.14	196.16	275.0	-0.4	-0.2	0.3	0.52	-0.20	174.52
300.0	0.14	170.90	300.0	-0.5	-0.3	0.4	0.24	0.00	-101.04
325.0	0.13	171.04	325.0	-0.5	-0.2	0.4	0.04	-0.04	0.56
350.0	0.07	87.60	350.0	-0.6	-0.2	0.5	0.56	-0.24	-333.76
375.0	0.11	169.19	375.0	-0.6	-0.2	0.5	0.49	0.16	326.36
400.0	0.17	324.87	400.0	-0.6	-0.2	0.5	1.10	0.24	622.72
425.0	0.45	343.07	425.0	-0.5	-0.3	0.4	1.17	1.12	72.80
450.0	0.99	345.03	450.0	-0.2	-0.4	0.0	2.16	2.16	7.84
475.0	1.40	345.81	475.0	0.4	-0.5	-0.5	1.64	1.64	3.12
500.0	1.78	346.29	500.0	1.0	-0.7	-1.2	1.52	1.52	1.92
525.0	1.97	350.06	525.0	1.8	-0.8	-2.0	0.91	0.76	15.08
550.0	2.32	350.39	550.0	2.7	-1.0	-2.9	1.40	1.40	1.32
575.0	2.75	354.05	574.9	3.8	-1.1	-4.0	1.84	1.72	14.64
600.0	3.28	359.66	599.9	5.2	-1.2	-5.3	2.42	2.12	22.44
625.0	4.13	5.39	624.6	6.6	-1.1	-6.8	3.70	3.40	22.92
650.0	4.74	7.59	649.6	8.7	-0.9	-8.5	2.53	2.44	8.80
675.0	5.72	11.65	674.7	10.9	-0.5	-10.6	4.19	3.92	16.24
700.0	6.37	15.73	699.5	13.5	0.1	-12.8	3.12	2.60	16.32
725.0	7.62	19.03	724.3	16.4	1.0	-15.3	5.25	5.00	13.20
750.0	8.42	21.50	749.1	19.7	2.3	-18.0	3.48	3.20	9.86
775.0	9.06	23.53	773.8	23.2	3.7	-20.9	2.84	2.56	8.12
800.0	9.80	20.74	798.5	27.0	5.3	-24.0	3.48	2.96	-11.16
825.0	8.54	23.15	823.1	30.7	6.7	-27.1	5.27	-5.04	9.64
850.0	9.04	21.25	847.8	34.2	8.2	-30.0	2.31	2.00	-7.60
875.0	7.82	24.28	872.6	37.6	9.6	-32.8	5.19	-4.88	12.12
900.0	7.65	23.18	897.3	40.7	10.9	-35.3	0.90	-0.88	-4.40
925.0	7.24	24.80	922.1	43.6	12.3	-37.7	1.84	-1.84	6.48
950.0	6.66	25.09	947.0	46.4	13.5	-39.9	2.32	-2.32	1.16
975.0	6.46	25.34	971.8	48.9	14.7	-42.0	0.81	-0.80	1.00
1,000.0	5.82	25.92	996.6	51.4	15.9	-43.9	2.57	-2.56	2.32
1,025.0	5.77	24.60	1,021.5	53.6	17.0	-45.8	0.57	-0.20	-5.28
1,050.0	5.23	25.68	1,046.4	55.8	18.0	-47.5	2.20	-2.16	4.32
1,075.0	4.92	25.46	1,071.3	57.8	19.0	-49.1	1.24	-1.24	-0.88
1,100.0	4.71	26.29	1,096.2	59.7	19.9	-50.7	0.88	-0.84	3.32
1,125.0	4.27	27.12	1,121.1	61.4	20.7	-52.0	1.78	-1.76	3.32
1,150.0	4.08	26.26	1,146.1	63.1	21.6	-53.3	0.80	-0.76	-3.36
1,175.0	3.69	26.81	1,171.0	64.6	22.3	-54.5	1.57	-1.56	2.12
1,200.0	3.38	25.41	1,196.0	66.0	23.0	-55.7	1.29	-1.24	-5.60
1,225.0	3.04	27.75	1,220.9	67.2	23.6	-56.7	1.46	-1.36	9.36

09/15/2017



Scientific Drilling International
Survey Report



Company:	Antero Resources	Local Co-ordinate Reference:	Well Banner Unit 1H
Project:	Tyler County WV	TVD Reference:	Precision 525: GL 1188' + KB 19' @ 1207.0usft
Site:	Coastal 2 Pad: Banner/Prudence/Tabor	MD Reference:	Precision 525: GL 1188' + KB 19' @ 1207.0usft
Well:	Banner Unit 1H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Antero NE

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
1,250.0	2.69	27.97	1,245.9	68.4	24.2	-57.6	0.60	-0.60	0.88	
1,275.0	2.63	28.00	1,270.9	69.4	24.8	-58.4	1.04	-1.04	0.12	
1,300.0	2.33	28.12	1,295.8	70.4	25.3	-59.2	1.24	-1.20	-7.52	
1,325.0	2.27	29.84	1,320.8	71.3	25.8	-59.9	0.64	-0.24	14.88	
1,350.0	1.87	32.38	1,345.8	72.0	26.2	-60.4	1.64	-1.60	10.16	
1,375.0	1.71	34.92	1,370.8	72.7	26.7	-60.9	0.71	-0.64	10.16	
1,400.0	1.38	33.50	1,395.8	73.2	27.0	-61.3	1.33	-1.32	-5.68	
1,425.0	1.29	33.86	1,420.8	73.7	27.4	-61.7	0.36	-0.36	1.44	
1,450.0	1.22	34.18	1,445.8	74.2	27.7	-62.0	0.28	-0.28	1.28	
1,475.0	1.10	29.15	1,470.8	74.6	27.9	-62.4	0.83	-0.48	-20.12	
1,500.0	1.00	33.64	1,495.8	75.0	28.2	-62.7	0.52	-0.40	17.96	
1,525.0	0.81	34.13	1,520.8	75.3	28.4	-62.9	0.76	-0.76	1.96	
1,550.0	0.62	36.54	1,545.8	75.6	28.6	-63.1	0.77	-0.76	9.64	
1,575.0	0.62	38.08	1,570.8	75.8	28.7	-63.3	0.07	0.00	6.16	
1,600.0	0.55	41.99	1,595.8	76.0	28.9	-63.4	0.32	-0.28	15.64	
1,625.0	0.37	45.80	1,620.8	76.1	29.0	-63.5	0.73	-0.72	15.24	
1,650.0	0.32	47.38	1,645.8	76.3	29.1	-63.5	0.20	-0.20	6.32	
1,675.0	0.23	50.54	1,670.8	76.3	29.2	-63.6	0.36	-0.36	12.64	
1,700.0	0.24	41.13	1,695.8	76.4	29.3	-63.6	0.16	0.04	-37.64	
1,725.0	0.23	7.35	1,720.8	76.5	29.3	-63.7	0.55	-0.04	-135.12	
1,750.0	0.26	43.13	1,745.8	76.6	29.4	-63.8	0.61	0.12	143.12	
1,775.0	0.28	62.19	1,770.8	76.7	29.5	-63.8	0.37	0.08	76.24	
1,800.0	0.18	51.07	1,795.8	76.7	29.6	-63.8	0.51	-0.48	-44.48	
1,825.0	0.16	33.10	1,820.8	76.8	29.6	-63.9	0.20	0.00	-71.88	
1,850.0	0.09	10.42	1,845.8	76.8	29.6	-63.9	0.34	-0.28	-90.72	
1,875.0	0.15	43.37	1,870.8	76.8	29.7	-64.0	0.36	0.24	131.80	
1,900.0	0.17	36.92	1,895.8	76.9	29.7	-64.0	0.11	0.08	-25.80	
1,925.0	0.17	23.23	1,920.8	77.0	29.7	-64.0	0.16	0.00	-54.76	
1,950.0	0.21	342.72	1,945.8	77.0	29.7	-64.1	0.55	0.16	-162.04	
1,975.0	0.36	345.63	1,970.8	77.2	29.7	-64.2	0.60	0.60	11.64	
2,000.0	0.38	350.54	1,995.8	77.3	29.7	-64.4	0.15	0.08	19.64	
2,025.0	0.40	338.03	2,020.8	77.5	29.6	-64.6	0.35	0.08	-50.04	
2,050.0	0.42	341.98	2,045.8	77.6	29.6	-64.7	0.14	0.08	15.80	
2,075.0	0.45	335.99	2,070.8	77.8	29.5	-64.9	0.22	0.12	-23.96	
2,100.0	0.44	346.50	2,095.8	78.0	29.4	-65.1	0.33	-0.04	42.04	
2,125.0	0.46	346.70	2,120.8	78.2	29.4	-65.3	0.08	0.08	0.80	
2,150.0	0.47	334.62	2,145.7	78.4	29.3	-65.5	0.39	0.04	-48.32	
2,175.0	0.45	337.50	2,170.7	78.6	29.2	-65.7	0.12	-0.08	11.52	
2,200.0	0.52	331.82	2,195.7	78.6	29.2	-65.9	0.34	0.28	-22.72	
2,225.0	0.57	338.53	2,220.7	79.0	29.1	-66.2	0.32	0.20	26.84	
2,250.0	0.43	339.07	2,245.7	79.2	29.0	-66.4	0.56	-0.56	2.16	
2,275.0	0.38	340.14	2,270.7	79.3	28.9	-66.6	0.20	-0.20	4.28	
2,300.0	0.35	340.22	2,295.7	79.5	28.9	-66.7	0.12	-0.12	0.32	
2,325.0	0.40	336.18	2,320.7	79.6	28.8	-66.9	0.23	0.20	-16.16	



Scientific Drilling International
Survey Report

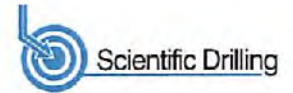


Company:	Antero Resources	Local Co-ordinate Reference:	Well Banner Unit 1H
Project:	Tyler County WV	TVD Reference:	Precision 525: GL 1188' + KB 19' @ 1207.0usft
Site:	Coastal 2 Pad: Banner/Prudence/Tabor	MD Reference:	Precision 525: GL 1188' + KB 19' @ 1207.0usft
Well:	Banner Unit 1H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Antero NE

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
2,350.0	0.30	331.66	2,345.7	79.6	26.7	-67.0	0.41	-0.40	-17.28	
2,375.0	0.29	336.58	2,370.7	79.9	26.7	-67.2	0.11	-0.04	18.88	
2,400.0	0.25	332.67	2,395.7	80.0	26.6	-67.3	0.18	-0.16	-15.64	
2,425.0	0.26	334.07	2,420.7	80.1	26.6	-67.4	0.05	0.04	5.60	
2,450.0	0.28	336.58	2,445.7	80.2	26.5	-67.5	0.09	0.08	10.04	
2,475.0	0.22	334.07	2,470.7	80.3	26.5	-67.6	0.24	-0.24	-10.04	
2,500.0	0.17	322.51	2,495.7	80.4	26.4	-67.7	0.25	-0.20	-46.24	
2,525.0	0.35	306.90	2,520.7	80.5	26.4	-67.8	0.77	0.72	-62.44	
2,550.0	0.31	294.36	2,545.7	80.5	26.2	-67.9	0.33	-0.16	-50.16	
2,575.0	0.18	305.25	2,570.7	80.6	26.1	-68.0	0.55	-0.52	43.56	
2,600.0	0.21	282.62	2,595.7	80.6	26.1	-68.0	0.33	0.12	-90.52	
2,625.0	0.34	284.36	2,620.7	80.6	27.9	-68.1	0.52	0.52	6.96	
2,650.0	0.26	287.60	2,645.7	80.7	27.8	-68.2	0.33	-0.32	12.96	
2,675.0	0.27	274.28	2,670.7	80.7	27.7	-68.2	0.25	0.04	-53.28	
2,700.0	0.41	280.72	2,695.7	80.7	27.6	-68.3	0.58	0.56	25.76	
2,725.0	0.35	281.15	2,720.7	80.8	27.4	-68.4	0.24	-0.24	1.72	
2,750.0	0.31	284.97	2,745.7	80.8	27.3	-68.4	0.18	-0.16	15.28	
2,775.0	0.40	287.23	2,770.7	80.8	27.1	-68.5	0.36	0.36	9.04	
2,800.0	0.43	293.80	2,795.7	80.9	26.9	-68.6	0.22	0.12	26.28	
2,825.0	0.38	289.30	2,820.7	81.0	26.8	-68.8	0.24	-0.20	-18.00	
2,850.0	0.41	282.44	2,845.7	81.0	26.6	-68.9	0.22	0.12	-27.44	
2,875.0	0.45	279.68	2,870.7	81.0	26.4	-68.9	0.18	0.16	-11.04	
2,900.0	0.53	286.68	2,895.7	81.1	26.2	-69.1	0.40	0.32	28.80	
2,925.0	0.51	286.71	2,920.7	81.2	26.0	-69.2	0.10	-0.08	7.32	
2,950.0	0.54	277.66	2,945.7	81.2	25.8	-69.3	0.41	0.12	-43.40	
2,975.0	0.66	286.15	2,970.7	81.3	25.5	-69.4	0.64	0.48	41.16	
3,000.0	0.61	304.06	2,995.7	81.4	25.3	-69.6	0.73	-0.20	63.64	
3,025.0	0.49	270.76	3,020.7	81.5	25.1	-69.8	1.34	-0.48	-133.20	
3,050.0	0.65	283.12	3,045.7	81.5	24.6	-69.9	0.80	0.64	49.44	
3,075.0	0.66	292.04	3,070.7	81.6	24.5	-70.0	0.41	0.04	35.68	
3,100.0	0.65	297.15	3,095.7	81.7	24.3	-70.2	0.24	-0.04	20.44	
3,125.0	0.62	304.37	3,120.7	81.9	24.1	-70.4	0.34	-0.12	28.88	
3,150.0	0.62	304.39	3,145.7	82.0	23.8	-70.7	0.00	0.00	0.08	
3,175.0	0.58	282.64	3,170.7	82.1	23.6	-70.8	0.91	-0.16	-86.20	
3,200.0	1.01	281.56	3,195.7	82.2	23.3	-71.0	1.72	1.72	-5.12	
3,225.0	0.57	299.03	3,220.7	82.3	22.9	-71.2	1.99	-1.76	69.88	
3,250.0	0.56	300.76	3,245.7	82.4	22.7	-71.4	0.08	-0.04	6.92	
3,275.0	0.54	299.48	3,270.7	82.5	22.5	-71.6	0.09	-0.08	-5.12	
3,300.0	0.59	302.99	3,295.7	82.7	22.3	-71.8	0.24	0.20	14.04	
3,325.0	0.59	299.33	3,320.7	82.8	22.1	-71.9	0.15	0.00	-14.64	
3,350.0	0.59	305.84	3,345.7	82.9	21.9	-72.1	0.27	0.00	26.04	
3,375.0	0.61	300.94	3,370.7	83.1	21.6	-72.4	0.22	0.08	-19.60	
3,400.0	1.71	282.64	3,395.7	83.2	21.2	-72.6	4.59	4.40	-73.20	



Scientific Drilling International
Survey Report



Company:	Antero Resources	Local Co-ordinate Reference:	Well Banner Unit 1H
Project:	Tyler County WV	TVD Reference:	Precision 525: GL 1188' + KB 19' @ 1207.0usft
Site:	Coastal 2 Pad: Banner/Prudence/Tabor	MD Reference:	Precision 525: GL 1188' + KB 19' @ 1207.0usft
Well:	Banner Unit 1H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Antero NE

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
3,425.0	4.29	278.36	3,420.7	83.4	19.9	-73.2	10.35	10.32	-17.12	
3,450.0	5.82	277.36	3,445.6	83.7	17.7	-74.2	6.13	6.12	-4.00	
3,475.0	8.07	277.32	3,470.4	84.1	14.7	-75.5	9.00	9.00	-0.16	
3,500.0	8.51	276.82	3,495.1	84.6	11.1	-77.0	1.78	1.76	-2.00	
3,525.0	9.59	277.37	3,519.8	85.1	7.2	-78.7	4.33	4.32	2.20	
3,550.0	9.75	277.48	3,544.5	85.6	3.0	-80.5	0.64	0.64	0.44	
3,575.0	10.08	277.52	3,569.1	86.2	-1.2	-82.3	1.32	1.32	0.16	
3,600.0	10.27	276.96	3,593.7	86.7	-5.6	-84.2	0.66	0.76	-2.24	
3,625.0	11.04	274.19	3,618.3	87.2	-10.2	-86.1	3.70	3.08	-11.08	
3,650.0	11.20	273.92	3,642.8	87.5	-15.0	-87.9	0.67	0.64	-1.08	
3,675.0	11.22	273.73	3,667.3	87.8	-19.9	-89.7	0.17	0.08	-0.76	
3,700.0	11.84	273.15	3,691.8	88.1	-24.8	-91.5	2.52	2.48	-2.32	
3,725.0	13.18	271.57	3,716.2	88.3	-30.3	-93.4	5.53	5.36	-6.32	
3,750.0	13.63	271.14	3,740.5	88.5	-36.0	-95.3	1.84	1.80	-1.72	
3,775.0	13.68	270.86	3,764.8	88.6	-42.0	-97.2	0.33	0.20	-1.12	
3,800.0	14.86	270.21	3,789.1	88.6	-48.1	-99.2	4.76	4.72	-2.60	
3,825.0	15.60	270.05	3,813.2	88.7	-54.7	-101.2	2.96	2.96	-0.64	
3,850.0	15.76	269.94	3,837.2	88.7	-61.4	-103.3	0.65	0.64	-0.44	
3,875.0	16.13	270.16	3,861.3	88.7	-68.3	-105.4	1.50	1.48	0.68	
3,900.0	17.33	270.50	3,885.2	88.7	-75.5	-107.7	4.82	4.80	1.36	
3,925.0	17.70	270.53	3,909.1	88.8	-83.0	-110.0	1.48	1.48	0.12	
3,950.0	18.01	270.47	3,932.9	88.8	-90.7	-112.5	1.24	1.24	-0.24	
3,975.0	18.47	270.21	3,956.6	88.9	-98.5	-114.9	1.87	1.84	-1.04	
4,000.0	18.90	269.82	3,980.3	88.9	-106.5	-117.4	1.79	1.72	-1.56	
4,025.0	18.89	269.66	4,003.9	88.8	-114.6	-119.9	0.21	-0.04	-0.64	
4,050.0	18.62	269.66	4,027.6	88.8	-122.7	-122.3	1.08	-1.08	0.00	
4,075.0	19.34	269.89	4,051.3	88.8	-130.8	-124.8	2.90	2.88	0.92	
4,100.0	19.27	270.10	4,074.8	88.8	-139.1	-127.3	0.39	-0.28	0.84	
4,125.0	19.15	270.34	4,098.5	88.8	-147.3	-129.9	0.57	-0.48	0.96	
4,150.0	19.29	271.99	4,122.1	89.0	-155.5	-132.6	2.24	0.56	6.60	
4,175.0	20.72	273.91	4,145.6	89.4	-164.0	-135.6	6.29	5.72	7.68	
4,200.0	19.12	274.11	4,169.1	90.0	-172.5	-138.8	6.41	-6.40	0.80	
4,225.0	18.92	272.99	4,192.7	90.5	-180.7	-141.8	1.65	-0.80	-4.48	
4,250.0	20.03	273.59	4,216.3	91.0	-189.0	-144.8	4.51	4.44	2.40	
4,275.0	20.90	274.64	4,239.7	91.6	-197.7	-148.1	3.78	3.48	4.20	
4,300.0	21.04	274.71	4,263.0	92.3	-206.6	-151.6	0.57	0.56	0.28	
4,325.0	21.41	275.09	4,286.3	93.1	-215.6	-155.1	1.58	1.48	1.52	
4,350.0	22.69	276.80	4,309.5	94.1	-225.0	-158.9	5.73	5.12	6.84	
4,375.0	23.42	277.30	4,332.5	95.3	-234.7	-163.0	3.02	2.92	2.00	
4,400.0	23.80	276.18	4,355.4	96.5	-244.6	-167.2	2.35	1.52	-4.48	
4,425.0	24.58	275.64	4,378.2	97.5	-254.8	-171.4	3.24	3.12	-2.16	
4,450.0	25.68	274.76	4,400.9	98.5	-265.4	-175.5	4.65	4.40	-3.52	
4,475.0	26.00	274.18	4,423.4	99.3	-276.3	-179.7	1.63	1.28	-2.32	



Scientific Drilling International
Survey Report

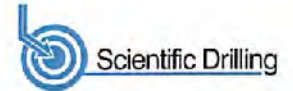


Company:	Antero Resources	Local Co-ordinate Reference:	Well Banner Unit 1H
Project:	Tyler County WV	TVD Reference:	Precision 525: GL 1188' + KB 19' @ 1207.0usft
Site:	Coastal 2 Pad: Banner/Prudence/Tabor	MD Reference:	Precision 525: GL 1188' + KB 19' @ 1207.0usft
Well:	Banner Unit 1H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Antero NE

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
4,500.0	25.85	272.12	4,445.8	99.9	-287.2	-183.6	3.65	-0.60	-8.24	
4,525.0	26.03	271.72	4,468.3	100.3	-298.1	-187.3	1.00	0.72	-1.80	
4,550.0	25.92	270.66	4,490.8	100.5	-309.1	-190.9	1.91	-0.44	-4.24	
4,575.0	25.38	269.80	4,513.3	100.6	-319.9	-194.3	2.62	-2.16	-3.44	
4,600.0	25.30	271.54	4,535.9	100.7	-330.6	-197.7	3.00	-0.32	6.96	
4,625.0	24.52	275.78	4,558.6	101.4	-341.1	-201.6	7.79	-3.12	16.96	
4,650.0	24.69	276.85	4,581.3	102.5	-351.4	-205.9	1.91	0.68	4.28	
4,675.0	24.43	277.16	4,604.1	103.8	-361.7	-210.3	1.16	-1.04	1.24	
4,700.0	25.01	278.58	4,626.8	105.2	-372.1	-214.8	3.32	2.32	5.68	
4,725.0	25.17	278.75	4,649.4	106.8	-382.6	-219.6	0.70	0.64	0.68	
4,750.0	24.80	278.27	4,672.1	108.4	-393.0	-224.3	1.69	-1.48	-1.92	
4,775.0	24.92	277.42	4,694.8	109.8	-403.4	-228.9	1.51	0.48	-3.40	
4,800.0	25.19	276.75	4,717.4	111.1	-413.9	-233.3	1.57	1.08	-2.68	
4,825.0	25.70	276.34	4,740.0	112.3	-424.6	-237.8	2.16	2.04	-1.64	
4,850.0	25.20	275.54	4,762.6	113.5	-435.3	-242.1	2.43	-2.00	-3.20	
4,875.0	25.80	275.65	4,785.1	114.5	-446.0	-246.4	2.41	2.40	0.44	
4,900.0	27.07	275.49	4,807.5	115.6	-457.1	-250.9	5.09	5.08	-0.64	
4,925.0	27.03	275.18	4,829.8	116.6	-468.4	-255.4	0.59	-0.16	-1.24	
4,950.0	27.32	274.80	4,852.0	117.6	-479.8	-259.8	1.35	1.16	-1.52	
4,975.0	27.79	274.77	4,874.2	118.6	-491.3	-264.3	1.88	1.88	-0.12	
5,000.0	27.89	274.41	4,896.3	119.5	-502.9	-268.8	0.78	0.40	-1.44	
5,025.0	28.95	273.78	4,918.3	120.4	-514.8	-273.3	4.41	4.24	-2.52	
5,050.0	27.85	273.35	4,940.3	121.1	-526.7	-277.6	4.48	-4.40	-1.72	
5,075.0	28.38	273.17	4,962.3	121.8	-538.4	-281.9	2.15	-2.12	-0.72	
5,100.0	27.71	272.62	4,984.4	122.4	-550.2	-286.1	2.87	-2.68	-2.20	
5,125.0	26.99	272.49	5,006.6	122.9	-561.6	-290.1	2.89	-2.88	-0.52	
5,150.0	27.15	273.27	5,028.8	123.5	-573.0	-294.1	1.56	0.64	3.12	
5,175.0	26.70	273.60	5,051.1	124.1	-584.3	-298.3	1.90	-1.80	1.32	
5,200.0	26.05	272.94	5,073.5	124.8	-595.4	-302.3	2.85	-2.60	-2.64	
5,225.0	25.98	272.51	5,096.0	125.3	-606.3	-306.2	0.80	-0.28	-1.72	
5,250.0	27.01	272.48	5,118.4	125.8	-617.5	-310.1	4.12	4.12	-0.12	
5,275.0	25.89	271.93	5,140.8	126.2	-628.6	-313.9	4.59	-4.48	-2.20	
5,300.0	25.53	271.00	5,163.3	126.5	-639.5	-317.5	2.16	-1.44	-3.72	
5,325.0	25.70	271.62	5,185.8	126.7	-650.3	-321.1	1.27	0.68	2.48	
5,350.0	25.99	272.02	5,208.3	127.1	-661.2	-324.8	1.35	1.16	1.60	
5,375.0	25.93	271.66	5,230.8	127.4	-672.1	-328.5	0.67	-0.24	-1.44	
5,400.0	25.21	271.64	5,253.3	127.7	-682.9	-332.1	2.88	-2.88	-0.08	
5,425.0	25.60	272.20	5,275.9	128.1	-693.6	-335.7	1.83	1.56	2.24	
5,450.0	25.64	272.26	5,298.5	128.5	-704.4	-339.5	0.19	0.16	0.24	
5,475.0	25.62	271.86	5,321.0	128.9	-715.2	-343.2	0.70	-0.08	-1.60	
5,500.0	26.00	272.25	5,343.5	129.3	-726.1	-346.9	1.66	1.52	1.56	
5,525.0	27.01	273.63	5,365.9	129.9	-737.2	-350.9	4.73	4.04	5.52	
5,550.0	27.17	273.13	5,388.2	130.6	-748.6	-355.0	1.11	0.64	-2.00	
5,575.0	27.83	272.87	5,410.3	131.2	-760.1	-359.1	2.68	2.64	-1.04	



Scientific Drilling International
Survey Report



Company:	Antero Resources	Local Co-ordinate Reference:	Well Banner Unit 1H
Project:	Tyler County WV	TVD Reference:	Precision 525: GL 1188' + KB 19' @ 1207.0usft
Site:	Coastal 2 Pad: Banner/Prudence/Tabor	MD Reference:	Precision 525: GL 1188' + KB 19' @ 1207.0usft
Well:	Banner Unit 1H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Antero NE

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
5,600.0	28.54	273.56	5,432.4	131.8	-771.9	-363.4	3.12	2.84	2.76	
5,625.0	29.16	274.90	5,454.3	132.7	-783.9	-368.0	3.58	2.48	5.36	
5,650.0	28.54	274.66	5,476.2	133.7	-796.0	-372.6	2.52	-2.48	-0.96	
5,675.0	28.10	275.85	5,498.2	134.8	-807.8	-377.3	2.85	-1.76	4.76	
5,700.0	27.56	277.54	5,520.3	136.2	-819.4	-382.2	3.82	-2.16	6.76	
5,725.0	27.21	277.42	5,542.5	137.7	-830.8	-387.1	1.42	-1.40	-0.48	
5,750.0	26.46	276.81	5,564.8	139.1	-842.0	-391.9	3.20	-3.00	-2.44	
5,775.0	26.17	276.16	5,587.2	140.3	-853.0	-396.5	1.64	-1.16	-2.60	
5,800.0	25.58	275.42	5,609.7	141.4	-863.8	-400.9	2.69	-2.36	-2.96	
5,825.0	25.06	274.46	5,632.3	142.3	-874.5	-405.0	2.85	-2.08	-3.84	
5,850.0	25.13	273.84	5,654.9	143.1	-885.0	-409.0	1.09	0.28	-2.48	
5,875.0	25.71	273.79	5,677.5	143.8	-895.8	-413.0	2.32	2.32	-0.20	
5,900.0	25.41	272.95	5,700.1	144.4	-906.5	-416.9	1.87	-1.20	-3.32	
5,925.0	24.86	271.97	5,722.7	144.9	-917.1	-420.6	2.77	-2.20	-3.96	
5,950.0	24.34	271.01	5,745.4	145.2	-927.5	-424.1	2.62	-2.08	-3.84	
5,975.0	23.54	269.99	5,768.3	145.3	-937.7	-427.3	3.60	-3.20	-4.08	
6,000.0	22.69	268.45	5,791.3	145.1	-947.5	-430.2	4.17	-3.40	-6.16	
6,025.0	22.56	268.28	5,814.3	144.9	-957.1	-432.9	0.58	-0.52	-0.68	
6,050.0	23.68	270.71	5,837.3	144.8	-966.9	-435.9	5.82	4.40	9.72	
6,075.0	24.38	272.52	5,860.2	145.1	-977.1	-439.3	4.06	2.80	7.24	
6,100.0	24.18	271.81	5,883.0	145.5	-987.3	-442.8	1.37	-0.72	-2.84	
6,125.0	24.78	271.59	5,905.7	145.8	-997.7	-446.3	2.43	2.40	-0.88	
6,150.0	26.37	272.64	5,928.3	146.2	-1,008.5	-450.0	6.61	6.36	4.20	
6,175.0	26.66	272.68	5,950.6	146.7	-1,019.6	-453.9	1.16	1.16	0.16	
6,200.0	26.41	272.39	5,973.0	147.2	-1,030.8	-457.9	1.13	-1.00	-1.16	
6,225.0	27.37	272.70	5,995.3	147.7	-1,042.1	-461.8	3.88	3.64	1.24	
6,250.0	27.76	272.84	6,017.5	148.2	-1,053.6	-465.9	1.58	1.56	0.56	
6,275.0	26.72	271.97	6,039.7	148.7	-1,065.1	-469.9	4.45	-4.16	-3.48	
6,300.0	26.52	271.33	6,062.0	149.0	-1,076.3	-473.7	1.40	-0.80	-2.56	
6,325.0	26.87	270.76	6,084.4	149.2	-1,087.5	-477.3	1.73	1.40	-2.28	
6,350.0	26.67	269.53	6,106.7	149.3	-1,098.8	-480.8	2.36	-0.60	-4.92	
6,375.0	26.00	268.48	6,129.1	149.1	-1,109.9	-484.0	3.26	-2.68	-4.20	
6,400.0	26.46	270.66	6,151.5	149.0	-1,120.9	-487.4	4.27	1.84	8.72	
6,425.0	27.30	272.50	6,173.8	149.3	-1,132.2	-491.2	4.73	3.36	7.36	
6,450.0	27.31	271.68	6,196.0	149.7	-1,143.7	-495.1	1.51	0.04	-3.28	
6,475.0	27.15	270.81	6,218.3	150.0	-1,155.1	-498.9	1.72	-0.64	-3.48	
6,500.0	27.65	270.98	6,240.5	150.2	-1,166.6	-502.6	2.02	2.00	0.68	
6,525.0	27.27	270.38	6,262.6	150.3	-1,178.1	-506.3	1.86	-1.52	-2.40	
6,550.0	28.84	269.65	6,284.9	150.3	-1,189.5	-509.8	2.17	-1.72	-2.92	
6,575.0	26.80	270.84	6,307.2	150.3	-1,200.8	-513.3	1.79	-0.16	3.96	
6,600.0	26.88	273.53	6,329.5	150.7	-1,212.1	-517.1	5.23	0.32	11.56	
Last SDI Gyro @ 6600 MD										
6,600.4	26.92	273.53	6,329.9	150.8	-1,212.2	-517.2	9.30	9.30	0.00	

OFFICE OF OIL AND GAS JUL 28 2011

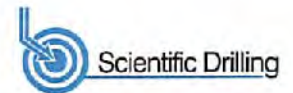


Company:	Antero Resources	Local Co-ordinate Reference:	Well Banner Unit 1H
Project:	Tyler County WV	TVD Reference:	Precision 525: GL 1188' + KB 19' @ 1207.0usft
Site:	Coastal 2 Pad: Banner/Prudence/Tabor	MD Reference:	Precision 525: GL 1188' + KB 19' @ 1207.0usft
Well:	Banner Unit 1H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Antero NE

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
6,617.0	26.68	272.80	6,344.7	151.2	-1,219.7	-519.9	2.46	-1.45	-4.41
First SDI MWD @ 6617									
6,707.0	26.30	274.02	6,425.2	153.6	-1,259.8	-534.5	0.74	-0.42	1.36
6,796.0	26.40	268.51	6,505.0	154.4	-1,299.2	-547.5	2.75	0.11	-6.19
6,841.0	26.50	265.87	6,545.3	153.4	-1,319.2	-552.8	2.62	0.22	-5.87
6,886.0	26.06	254.05	6,585.7	150.0	-1,338.8	-555.5	11.65	-0.98	-26.27
6,931.0	27.07	239.65	6,626.0	142.1	-1,357.1	-553.7	14.45	2.24	-32.00
6,976.0	28.42	226.61	6,665.8	129.6	-1,373.8	-546.8	13.79	3.00	-28.98
6,982.0	28.56	225.30	6,671.1	127.6	-1,375.8	-545.6	10.65	2.35	-21.78
Sycamore @ 6982									
7,021.0	29.77	217.14	6,705.2	113.3	-1,386.3	-535.9	10.65	3.10	-20.93
7,055.0	31.31	209.94	6,743.1	94.7	-1,400.6	-521.9	9.02	3.50	-16.36
7,110.0	32.79	202.42	6,781.2	73.3	-1,411.1	-504.6	9.45	3.29	-16.71
7,155.0	33.98	198.60	6,818.8	50.1	-1,419.6	-485.4	5.37	2.64	-8.49
7,172.0	34.73	197.22	6,832.9	40.9	-1,422.7	-477.6	6.35	4.40	-8.11
Middlesex @ 7172									
7,200.0	35.99	195.06	6,855.7	25.4	-1,427.2	-464.2	6.35	4.51	-7.72
7,245.0	39.31	192.33	6,891.3	-1.3	-1,433.7	-440.8	8.25	7.38	-6.07
7,289.0	44.47	187.66	6,924.1	-30.2	-1,438.7	-414.9	13.70	11.73	-10.61
7,334.0	50.14	183.25	6,954.6	-83.1	-1,441.8	-384.5	14.51	12.60	-9.80
7,349.0	51.60	182.37	6,964.0	-74.8	-1,442.4	-373.6	10.78	9.76	-5.89
Burkett @ 7349									
7,379.0	54.55	180.70	6,982.1	-98.7	-1,443.0	-351.0	10.78	9.82	-5.55
7,397.0	56.11	180.12	6,992.3	-113.5	-1,443.1	-337.0	9.08	8.68	-3.24
Tully @ 7397									
7,424.0	58.46	179.28	7,006.9	-136.3	-1,443.0	-315.3	9.08	8.70	-3.10
7,469.0	63.52	178.01	7,028.7	-175.6	-1,442.1	-277.6	11.51	11.24	-2.82
7,514.0	67.44	175.44	7,047.4	-216.4	-1,439.7	-238.0	10.14	8.71	-5.71
7,531.0	68.95	174.53	7,053.7	-232.2	-1,438.3	-222.7	10.17	8.89	-5.33
MRCL_HOT @ 7531									
7,558.0	71.36	173.13	7,062.9	-257.4	-1,435.6	-197.8	10.17	8.92	-5.20
7,603.0	74.08	170.75	7,076.2	-299.9	-1,429.6	-155.5	7.88	6.04	-5.29
7,648.0	77.72	167.67	7,087.2	-342.8	-1,421.4	-112.2	10.46	8.09	-6.84
7,693.0	83.84	165.83	7,094.4	-386.0	-1,411.2	-67.9	14.19	13.60	-4.09
7,756.0	91.41	162.79	7,097.0	-446.6	-1,394.2	-5.1	12.95	12.02	-4.83
7,801.0	91.68	164.23	7,095.8	-489.7	-1,381.4	39.9	3.25	0.60	3.20
7,891.0	91.14	164.41	7,093.6	-576.3	-1,357.1	129.8	0.63	-0.60	0.20
7,981.0	90.63	164.04	7,092.2	-682.9	-1,332.6	219.7	0.70	-0.57	-0.41
8,070.0	88.59	162.08	7,092.8	-748.0	-1,306.7	308.7	3.18	-2.29	-2.20
8,160.0	90.00	163.36	7,093.9	-834.0	-1,280.0	398.7	2.12	1.57	1.42
8,250.0	89.30	162.22	7,094.5	-919.9	-1,253.4	488.6	1.49	-0.78	-1.27
8,339.0	89.91	162.07	7,095.1	-1,004.7	-1,226.1	577.6	0.71	0.69	-0.17
8,429.0	90.08	162.31	7,095.1	-1,090.3	-1,198.5	667.6	0.33	0.19	0.27
8,518.0	89.10	162.51	7,095.7	-1,175.2	-1,171.6	756.6	1.12	-1.10	0.22
8,606.0	89.96	165.41	7,096.4	-1,261.7	-1,146.8	846.6	3.37	0.98	3.22



Scientific Drilling International
Survey Report



Company:	Antero Resources	Local Co-ordinate Reference:	Well Banner Unit 1H
Project:	Tyler County WV	TVD Reference:	Precision 525: GL 1188' + KB 19' @ 1207.0usft
Site:	Coastal 2 Pad: Banner/Prudence/Tabor	MD Reference:	Precision 525: GL 1188' + KB 19' @ 1207.0usft
Well:	Banner Unit 1H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Antero NE

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Bulld Rate (°/100usft)	Turn Rate (°/100usft)
8,698.0	89.07	164.23	7,097.2	-1,348.5	-1,123.2	936.5	1.66	-1.01	-1.31
8,787.0	90.45	169.57	7,097.6	-1,435.2	-1,103.0	1,025.1	6.20	1.55	6.00
8,877.0	88.41	165.28	7,098.5	-1,523.0	-1,083.5	1,114.7	5.28	-2.27	-4.77
8,987.0	87.54	162.32	7,101.6	-1,609.3	-1,058.4	1,204.6	3.43	-0.97	-3.29
9,056.0	89.08	161.18	7,104.3	-1,693.8	-1,030.5	1,293.5	2.15	1.73	-1.28
9,146.0	88.91	159.12	7,105.8	-1,778.5	-1,000.0	1,383.5	2.30	-0.19	-2.29
9,235.0	89.29	157.89	7,107.2	-1,861.3	-967.4	1,472.3	1.45	0.43	-1.36
9,325.0	91.10	158.89	7,106.9	-1,944.9	-934.2	1,562.1	2.30	2.01	1.11
9,415.0	90.23	158.00	7,105.9	-2,028.6	-901.1	1,651.9	1.38	-0.97	-0.99
9,505.0	90.20	159.90	7,105.5	-2,112.6	-868.8	1,741.8	2.11	-0.03	2.11
9,594.0	89.73	160.48	7,105.6	-2,196.3	-838.7	1,830.7	0.84	-0.53	0.65
9,684.0	90.10	162.59	7,105.7	-2,281.7	-810.2	1,920.7	2.38	0.41	2.34
9,773.0	89.76	162.35	7,105.8	-2,366.6	-783.3	2,009.7	0.47	-0.38	-0.27
9,863.0	89.69	162.33	7,106.3	-2,452.3	-756.0	2,099.7	0.08	-0.08	-0.02
9,952.0	90.50	161.10	7,106.1	-2,536.8	-728.1	2,188.7	1.65	0.91	-1.38
10,042.0	90.45	162.69	7,105.4	-2,622.4	-700.2	2,278.7	1.77	-0.06	1.77
10,132.0	89.65	163.61	7,105.3	-2,708.5	-674.1	2,368.7	1.35	-0.89	1.02
10,222.0	89.31	162.91	7,106.1	-2,794.7	-648.1	2,458.6	0.86	-0.38	-0.78
10,311.0	90.29	162.66	7,106.4	-2,879.7	-621.8	2,547.8	1.14	1.10	-0.28
10,401.0	90.86	163.53	7,105.5	-2,965.8	-595.6	2,637.6	1.16	0.63	0.97
10,491.0	89.11	162.52	7,105.6	-3,051.9	-569.4	2,727.6	2.25	-1.94	-1.12
10,580.0	89.24	162.38	7,106.8	-3,136.7	-542.5	2,816.6	0.21	0.15	-0.16
10,670.0	89.31	162.80	7,108.0	-3,222.6	-515.6	2,906.6	0.47	0.08	0.47
10,760.0	90.29	165.48	7,108.3	-3,309.2	-491.0	2,996.5	3.17	1.09	2.98
10,849.0	89.85	164.44	7,108.2	-3,395.1	-467.9	3,085.4	1.27	-0.49	-1.17
10,939.0	89.45	164.20	7,108.7	-3,481.8	-443.6	3,175.3	0.52	-0.44	-0.27
11,028.0	89.45	162.27	7,109.6	-3,567.0	-417.9	3,264.3	2.17	0.00	-2.17
11,118.0	89.65	160.17	7,110.3	-3,652.2	-389.0	3,354.3	2.34	0.22	-2.33
11,207.0	90.19	159.44	7,110.4	-3,735.7	-358.2	3,443.2	1.02	0.61	-0.82
11,297.0	89.55	157.11	7,110.6	-3,819.3	-324.9	3,533.0	2.68	-0.71	-2.59
11,387.0	90.42	159.09	7,110.6	-3,902.8	-291.3	3,622.8	2.40	0.97	2.20
11,476.0	91.16	160.87	7,109.4	-3,986.4	-260.9	3,711.7	2.17	0.83	2.00
11,566.0	89.89	161.45	7,108.6	-4,071.6	-231.8	3,801.7	1.55	-1.41	0.64
11,656.0	90.02	162.19	7,108.7	-4,157.1	-203.7	3,891.7	0.83	0.14	0.82
11,746.0	89.38	162.68	7,109.1	-4,242.9	-176.6	3,981.7	0.90	-0.71	0.54
11,835.0	89.38	161.88	7,110.1	-4,327.7	-149.5	4,070.7	0.90	0.00	-0.90
11,925.0	88.95	162.26	7,111.4	-4,413.3	-121.8	4,160.7	0.64	-0.48	0.42
12,015.0	89.63	162.53	7,112.5	-4,499.1	-94.6	4,250.7	0.81	0.76	0.30
12,105.0	90.27	162.52	7,112.6	-4,584.9	-67.5	4,340.7	0.71	0.71	-0.01
12,195.0	89.63	160.97	7,112.7	-4,670.4	-39.4	4,430.7	1.86	-0.71	-1.72
12,284.0	90.47	161.08	7,112.6	-4,754.5	-10.4	4,519.6	0.95	0.94	0.12
12,374.0	89.83	160.19	7,112.4	-4,839.4	19.4	4,609.6	1.22	-0.71	-0.99
12,464.0	89.63	160.93	7,112.8	-4,924.3	49.4	4,699.6	0.85	-0.22	0.82



Scientific Drilling International
Survey Report



Company:	Antero Resources	Local Co-ordinate Reference:	Well Banner Unit 1H
Project:	Tyler County WV	TVD Reference:	Precision 525: GL 1188' + KB 19' @ 1207.0usft
Site:	Coastal 2 Pad: Banner/Prudence/Tabor	MD Reference:	Precision 525: GL 1188' + KB 19' @ 1207.0usft
Well:	Banner Unit 1H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Antero NE

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
12,553.0	89.19	161.93	7,113.7	-5,008.7	77.7	4,768.6	1.23	-0.49	1.12	
12,643.0	88.89	161.65	7,115.2	-5,094.1	105.8	4,878.6	0.46	-0.33	-0.31	
12,732.0	88.63	161.19	7,117.1	-5,178.5	134.2	4,967.5	0.59	-0.29	-0.52	
12,822.0	90.74	163.97	7,117.6	-5,264.3	161.1	5,057.5	3.88	2.34	3.09	
12,911.0	90.34	163.62	7,116.8	-5,349.8	186.0	5,146.5	0.60	-0.45	-0.39	
13,001.0	90.54	163.08	7,116.1	-5,436.0	211.8	5,236.4	0.64	0.22	-0.60	
13,090.0	89.80	162.00	7,115.8	-5,520.9	238.5	5,325.4	1.47	-0.83	-1.21	
13,180.0	89.39	160.43	7,116.5	-5,606.1	267.4	5,415.4	1.80	-0.46	-1.74	
13,269.0	89.53	161.46	7,117.3	-5,690.2	296.5	5,504.4	1.17	0.16	1.16	
13,359.0	89.46	160.65	7,118.1	-5,775.4	325.7	5,594.4	0.90	-0.08	-0.90	
13,448.0	89.76	165.01	7,118.7	-5,860.4	352.0	5,683.3	4.91	0.34	4.90	
13,538.0	90.20	163.29	7,118.7	-5,947.0	376.6	5,773.3	1.97	0.48	-1.91	
13,628.0	89.90	161.19	7,118.7	-6,032.7	404.0	5,863.3	2.36	-0.33	-2.33	
13,717.0	87.72	159.35	7,120.5	-6,116.4	434.0	5,952.2	3.20	-2.45	-2.07	
13,807.0	88.86	160.09	7,123.2	-6,200.8	465.2	6,042.1	1.51	1.27	0.82	
13,896.0	89.93	163.38	7,124.1	-6,285.3	493.1	6,131.1	3.89	1.20	3.70	
13,986.0	88.82	164.28	7,125.1	-6,371.7	518.2	6,221.0	1.59	-1.23	1.00	
14,076.0	89.87	166.09	7,126.2	-6,458.7	541.2	6,310.9	2.32	1.17	2.01	
14,165.0	89.66	164.72	7,126.5	-6,544.8	563.6	6,399.7	1.56	-0.24	-1.54	
14,255.0	88.73	162.69	7,127.8	-6,631.2	588.9	6,489.7	2.48	-1.03	-2.28	
14,345.0	89.80	163.81	7,128.9	-6,717.4	614.8	6,579.6	1.72	1.19	1.24	
14,434.0	90.03	161.45	7,129.1	-6,802.3	641.4	6,668.6	2.66	0.26	-2.65	
14,523.0	89.23	159.22	7,129.6	-6,886.1	671.3	6,757.6	2.66	-0.90	-2.51	
14,613.0	90.10	159.00	7,130.2	-6,970.2	703.4	6,847.5	1.00	0.97	-0.24	
14,702.0	90.20	161.08	7,129.9	-7,053.9	733.8	6,936.4	2.34	0.11	2.34	
14,792.0	89.26	161.75	7,130.4	-7,139.2	762.5	7,026.4	1.28	-1.04	0.74	
14,881.0	89.70	161.82	7,131.2	-7,223.7	790.3	7,115.4	0.50	0.49	0.08	
14,971.0	89.06	162.60	7,132.1	-7,309.4	817.6	7,205.4	1.30	-0.71	1.09	
15,060.0	86.28	162.05	7,134.2	-7,394.3	844.5	7,294.3	1.22	-0.68	-0.84	
15,150.0	86.82	163.09	7,136.5	-7,480.1	871.4	7,384.3	1.30	0.60	1.16	
15,240.0	90.37	164.20	7,137.1	-7,566.4	896.8	7,474.3	2.12	1.72	1.23	
15,329.0	89.66	162.72	7,136.9	-7,651.8	922.1	7,563.2	1.76	-0.57	-1.66	
15,419.0	89.89	163.25	7,137.1	-7,737.8	946.5	7,653.2	0.59	0.03	0.59	
15,508.0	86.89	161.43	7,138.1	-7,822.6	975.4	7,742.2	2.33	-1.12	-2.04	
15,598.0	86.08	160.68	7,140.5	-7,907.7	1,004.7	7,832.2	1.23	-0.90	-0.83	
15,687.0	90.23	162.02	7,141.6	-7,992.0	1,033.1	7,921.1	2.85	2.42	1.51	
15,777.0	89.39	161.22	7,142.1	-8,077.4	1,061.5	8,011.1	1.29	-0.93	-0.89	
15,866.0	89.33	160.22	7,143.1	-8,161.4	1,090.9	8,100.1	1.13	-0.07	-1.12	
15,956.0	90.10	161.58	7,143.5	-8,246.5	1,120.3	8,190.1	1.74	0.65	1.51	
16,046.0	89.83	161.15	7,143.6	-8,331.8	1,149.1	8,280.1	0.56	-0.30	-0.48	
16,135.0	86.59	161.31	7,144.8	-8,416.0	1,177.7	8,369.1	1.40	-1.39	0.18	
16,225.0	89.46	161.44	7,146.3	-8,501.3	1,206.5	8,459.0	0.98	0.97	0.14	
16,314.0	87.75	160.43	7,148.5	-8,585.4	1,235.5	8,548.0	2.23	-1.92	-1.13	

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Company:	Antero Resources	Local Co-ordinate Reference:	Well Banner Unit 1H
Project:	Tyler County WV	TVD Reference:	Precision 525: GL 1188' + KB 19' @ 1207.0usft
Site:	Coastal 2 Pad: Banner/Prudence/Tabor	MD Reference:	Precision 525: GL 1188' + KB 19' @ 1207.0usft
Well:	Banner Unit 1H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Antero NE

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
16,404.0	89.90	161.81	7,150.3	-8,670.5	1,264.6	8,638.0	2.84	2.39	1.53	
16,493.0	91.34	164.12	7,149.4	-8,755.6	1,290.7	8,726.9	3.06	1.62	2.60	
16,583.0	88.05	160.48	7,149.9	-8,841.3	1,318.0	8,816.9	5.44	-3.66	-4.03	
16,672.0	89.53	161.47	7,151.7	-8,925.4	1,347.0	8,905.9	1.99	1.66	1.10	
16,762.0	89.80	162.57	7,152.3	-9,011.0	1,374.8	8,995.9	1.26	0.30	1.22	
16,851.0	90.44	162.94	7,152.1	-9,096.0	1,401.2	9,084.9	0.83	0.72	0.42	
16,941.0	88.79	163.39	7,152.7	-9,182.2	1,427.3	9,174.8	1.90	-1.83	0.50	
17,030.0	91.11	165.83	7,152.8	-9,268.0	1,450.9	9,263.7	3.78	2.61	2.74	
17,120.0	89.83	163.80	7,152.0	-9,354.8	1,474.5	9,353.6	2.67	-1.42	-2.26	
17,209.0	89.83	161.89	7,152.3	-9,439.8	1,500.7	9,442.8	2.15	0.00	-2.15	
17,299.0	90.17	162.29	7,152.3	-9,525.5	1,528.4	9,532.6	0.58	0.38	0.44	
17,388.0	89.73	161.35	7,152.4	-9,610.0	1,556.2	9,621.6	1.17	-0.49	-1.06	
17,478.0	89.83	160.73	7,152.7	-9,695.2	1,585.4	9,711.6	0.70	0.11	-0.69	
17,567.0	88.76	161.38	7,153.8	-9,779.3	1,614.3	9,800.6	1.41	-1.20	0.73	
17,657.0	90.13	162.24	7,154.7	-9,864.8	1,642.4	9,890.6	1.80	1.52	0.96	
17,746.0	90.27	163.45	7,154.4	-9,949.9	1,668.6	9,979.5	1.37	0.16	1.36	
17,836.0	89.56	163.42	7,154.5	-10,036.1	1,694.3	10,069.5	0.79	-0.79	-0.03	
17,926.0	88.69	161.86	7,155.9	-10,122.0	1,721.1	10,159.5	1.98	-0.97	-1.73	
18,015.0	90.57	162.92	7,156.4	-10,206.8	1,748.1	10,248.5	2.42	2.11	1.19	
18,105.0	90.03	160.66	7,156.0	-10,292.3	1,776.2	10,338.5	2.58	-0.60	-2.51	
18,194.0	89.80	157.02	7,156.1	-10,375.3	1,806.3	10,427.3	4.10	-0.26	-4.09	
18,284.0	89.53	157.64	7,156.6	-10,458.3	1,843.0	10,517.0	0.75	-0.30	0.69	
18,373.0	90.74	160.29	7,156.4	-10,541.4	1,874.9	10,605.9	3.27	1.36	2.98	
18,463.0	90.84	160.75	7,155.2	-10,626.2	1,904.9	10,695.8	0.52	0.11	0.51	
18,552.0	93.18	163.39	7,152.1	-10,710.9	1,932.3	10,784.8	3.96	2.63	2.97	
18,641.0	90.83	162.14	7,149.0	-10,795.8	1,958.7	10,873.7	2.99	-2.64	-1.40	
18,731.0	89.89	160.95	7,148.4	-10,881.2	1,987.2	10,963.7	1.68	-1.04	-1.32	
18,820.0	90.06	160.90	7,148.4	-10,965.3	2,016.3	11,052.7	0.20	0.19	-0.06	
18,910.0	90.23	161.92	7,148.2	-11,050.6	2,044.9	11,142.7	1.15	0.19	1.13	
19,000.0	89.73	163.05	7,148.2	-11,136.4	2,072.0	11,232.7	1.37	-0.56	1.26	
19,089.0	89.32	161.96	7,149.0	-11,221.3	2,098.8	11,321.7	1.31	-0.46	-1.22	
19,179.0	90.16	162.16	7,149.4	-11,306.9	2,126.5	11,411.7	0.86	0.93	0.22	
19,269.0	90.50	162.45	7,148.9	-11,392.6	2,153.9	11,501.7	0.50	0.38	0.32	
19,353.0	91.27	161.77	7,147.6	-11,472.6	2,179.7	11,585.6	1.22	0.92	-0.81	
Last SDI MWD @ 19353										
19,416.0	91.27	161.77	7,146.2	-11,532.4	2,199.4	11,648.6	0.00	0.00	0.00	
Projection To Bit @ 19416 MD / 7146 TVD										



Scientific Drilling International
Survey Report



Company:	Antero Resources	Local Co-ordinate Reference:	Well Banner Unit 1H
Project:	Tyler County WV	TVD Reference:	Precision 525: GL 1188' + KB 19' @ 1207.0usft
Site:	Coastal 2 Pad: Banner/Prudence/Tabor	MD Reference:	Precision 525: GL 1188' + KB 19' @ 1207.0usft
Well:	Banner Unit 1H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Antero NE

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
6,982.0	6,671.1	Sycamore @ 6982		0.00		
7,172.0	6,832.9	Middlesex @ 7172		0.00		
7,349.0	6,964.0	Burkett @ 7349		0.00		
7,397.0	6,992.3	Tully @ 7397		0.00		
7,531.0	7,053.7	MRCL_HOT @ 7531		0.00		

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
25.0	25.0	0.0	0.0	First SDI Gyro @ 25 MD	
6,600.0	6,329.5	150.7	-1,212.1	Last SDI Gyro @ 6600 MD	
6,617.0	6,344.7	151.2	-1,219.7	First SDI MWD @ 6617	
19,353.0	7,147.6	-11,472.6	2,179.7	Last SDI MWD @ 19353	
19,416.0	7,146.2	-11,532.4	2,199.4	Projection To Bit @ 19416 MD / 7146 TVD	

Checked By: _____ Approved By: _____ Date: _____